

# **Chapter 8:**

# ***Wastewater***



2002 Edition



# Chapter 8: Wastewater

## Introduction

As the Industrial Revolution unfolded in New Hampshire around the turn of the 20<sup>th</sup> century, industries developed that generated varying volumes and strengths of industrial wastewater. As those industries prospered, the population density increased in the more urbanized areas of the state and, as a direct consequence, so did the volume of wastewater being generated. During those early days, sewerage infrastructure to collect and treat the increasing waste volumes was either non-existent or minimal at best. Communities and business owners oftentimes turned to the cheapest and most available method of disposal - direct discharge to a nearby river or stream. The commonly accepted notions at that time were that the “solution to pollution was dilution” and “out of sight, out of mind”. Flowing surface waters were essentially used as inexpensive sewers, with little regard to long-term effects. As the economy grew and the density of both businesses and population increased, the receiving waters began to show signs of severe damage, witnessed by foul odors, lack of dissolved oxygen, fish kills, human disease outbreaks, and a general collapse of the aquatic ecosystem, rendering it unavailable for any other use. It was not until the 1940s and 1950s that public and private officials alike sounded the alarm and decided that old practices must change for the benefit of the current and future public health and natural environment of New Hampshire.

## Primary/Secondary/Tertiary Wastewater Treatment

In 1948, the federal government enacted the first “Federal Water Pollution Control Act” (now known as the “Clean Water Act”, (see <http://www4.law.cornell.edu/uscode/33/ch26.html>)). The New Hampshire Legislature enacted its first water pollution control legislation in 1949 and created the Water Pollution Commission. While modest gains were made during the ensuing decades in controlling the discharge of untreated wastes into rivers and streams, it was not until the U. S. Environmental Protection Agency (“EPA”) was created in 1970 and the Federal Water Pollution Control Act Amendments of 1972 were enacted that significant strides were realized in the design, construction, and operation of centralized wastewater treatment facilities to collect and treat these wastes before discharge. Over the next three decades, the federal Clean Water Act was amended and improved to address such issues as better treatment facility design and technology, construction and operation, standards and procedures for procurement of professional services, enhanced pretreatment requirements prior to discharge, sludge and septage management (including beneficial reuse of these materials), and certification requirements for wastewater treatment facility operators. Early facilities, those designed and constructed in the 1940s and 1950s, relied mostly on “primary” treatment (*i.e.*, solids removal by sedimentation or floatation) before releasing the resulting effluent to the environment. As technology advanced and discharge limits tightened throughout the 1960s and 1970s, the Federal Water Pollution Control Act Amendments of 1972 required that wastewater treatment facilities install “secondary” treatment (including the removal of suspended solids and reduction of biological oxygen demand) before release to receiving waters. New systems such as “activated sludge” digesters, oxidation ditches, and rotating biological contactors (“RBCs”) began to be widely selected as viable treatment systems for community and industrial wastewaters. Secondary treatment systems now represent the most widely used method of treating domestic and industrial wastewater in New Hampshire. In selected cases, due largely to restrictive receiving water limits, some municipal and private facilities have installed “tertiary” treatment systems (*i.e.*, nutrient removal) to protect the water quality and sensitive indigenous populations in a receiving stream or river. Techniques such as reverse osmosis and spray irrigation of secondarily-treated wastewater onto upland forest or field sites for “polishing” (*i.e.*, phosphorous and nitrate removal) also have been successfully used in New Hampshire.

## Surface Water Classification

The former Water Supply and Pollution Control Commission (one of the two predecessor agencies to the current DES Water Division) has been dealing with wastewater treatment since the 1950s. New

Hampshire's surface waters were classified by the state legislature as either "Class A" (highest quality, drinkable after disinfection) or "Class B" (second highest quality, fishable/swimmable, and drinkable after treatment), pursuant to RSA 485-A:8 ("Water Pollution and Waste Disposal/Standards for Classification of Surface Waters of the State", <http://gencourt.state.nh.us/rsa/html/L/485-A/485-A-8.htm>), in accordance with their intended uses and water quality goals. During the 1960s and 1970s, the water quality in some rivers and streams was so poor that they were classified by the former RSA 149:3 ("Water Pollution and Disposal of Wastes") as "Class C" (third highest quality, non-contact recreational use, industrial use after treatment) and "Class D" (lowest quality, industrial use, power, and navigation only) classifications which no longer exist thanks to the proliferation of modern wastewater treatment systems in New Hampshire. All surface waters in New Hampshire are now designated as either "Class A" or "Class B" waters. According to the **2000 305(b) Water Quality Report** (see <http://www.des.state.nh.us/wmb/2000-305b.pdf>), prepared by DES for submittal to EPA, 2,677.4 miles (or 24.6 percent) of the 10,881 miles of rivers and streams in New Hampshire have been assessed to determine whether they met the classification of "fishable/swimmable" (Class B). Of that total, 2,233 miles (or 83.4 percent) were found to fully support all uses. The remaining 444 miles either partially support the uses or need further attention to attain those standards. Once again, much of this measured improvement is a result of the success of wastewater treatment facilities across the state.

### Financial Assistance Programs

Financial assistance to municipalities from federal and state programs has played a significant role in achieving those successes. What began as an EPA Construction Grants Program in early 1970s has now evolved in 1989 into the DES *Clean Water State Revolving Loan Fund* (see <http://www.des.state.nh.us/factsheets/wwt/web-6.htm>). Since the 1970s, the EPA and DES have provided more than a billion dollars in grants and loans to 92 eligible municipal wastewater treatment systems. This included money to build and upgrade treatment facilities, design and construct new pump stations (and upgrade old ones), install new interceptors to expand service areas, and assist with other eligible needs. For a more complete explanation and accounting of DES's efforts to assist communities with grants and loans, please review the brochure entitled **Grants and Loans from the New Hampshire Department of Environmental Services**, or access the information online at [http://www.des.state.nh.us/grants\\_loans.htm](http://www.des.state.nh.us/grants_loans.htm).

### Petition for Tax Exemption for Water Pollution Control Facilities

RSA 72:12-a ("Persons and Property Liable to Taxation/Property Taxes/Water and Air Pollution Control Facilities", <http://gencourt.state.nh.us/rsa/html/V/72/72-12-a.htm>) provides that *[a]ny person, firm or corporation which builds, constructs, installs, or places in use in this state any treatment facility, device, appliance, or installation wholly or partly for the purpose of reducing, controlling, or eliminating any source of air or water pollution shall be entitled to have the value of said facility and any real estate necessary therefore, or a percentage thereof determined in accordance with this section [i.e., RSA 72:12-a], exempted from the taxes levied under this chapter [i.e., RSA 72] for the period of years in which the facility, device, appliance, or installation is used in accordance with the provisions of this section.* Application for a tax exemption for water pollution control facilities must be made to the DES Commissioner in letter form and should include the following:

- An adequate description of the water pollution control facilities, including plans, property assessment record cards, photographs, a list of equipment subject to the request, and property descriptions
- A description of the function or functions of the water pollution control facilities
- The applicant's total investment in the water pollution control facilities and the portion allocable to each function

It is DES's responsibility to determine whether the purpose of the facility for which an exemption is sought is solely or only partially for pollution control. If the purpose of the facility is only partially for pollution control, DES must determine the percentage used to control pollution, based on the applicant's total investment

therein. Applications for this exemption for water pollution control facilities should be directed to: Commissioner, New Hampshire Department of Environmental Services, P. O. Box 95, 6 Hazen Drive, Concord, NH 03302-0095. Telephone: (603) 271-3449 or fax: (603) 271-2867

### **Wastewater Engineering Bureau**

The DES Water Division's Wastewater Engineering Bureau represents the primary entity within DES that deals with the myriad of issues related to effective wastewater management in New Hampshire. Its mission is to ensure that the design, construction, and operation of wastewater treatment facilities are carried out in accordance with all applicable federal laws, state statutes, local by-laws and ordinances, and to assure the appropriate removal, transportation, and disposal (or beneficial use) of associated residuals. Specifically, its role is to:

- Ensure that wastewater treatment facilities are designed and constructed in accordance with state standards.
- Ensure that wastewater treatment facilities are operated in accordance with the facilities' discharge permits (and effluent limits) by providing compliance inspections, technical assistance, and operator training and certification.
- Provide financial assistance in the form of grants and low-interest loans for eligible projects.
- Issue permits to ensure that the wastewater treatment facilities' discharges do not violate the state's surface water quality rules, which include water quality standards.
- Ensure that industrial discharges to municipal wastewater treatment facilities do not adversely impact their operation or cause the treatment facilities to violate state surface water quality rules or standards.
- Ensure that all septage and sludge management activities are permitted and performed in accordance with state standards.

### **NPDES Permits/Surface Water Discharge Permits**

EPA administers the National Pollutant Discharge Elimination System ("NPDES") Permitting Program for New Hampshire and issues the federal NPDES Permit under Section 402 of the federal Clean Water Act (see <http://www4.law.cornell.edu/uscode/33/ch26.html>). NPDES permits set limits on what amounts of what kind of pollutants can be contained in direct discharges of wastewater to a surface waters of the state. The Permits and Compliance Section of the DES Wastewater Engineering Bureau reviews the draft federal permit to ensure that the proposed discharge will not violate any state statute or rule, including the State's water quality standards. If the draft permit contains conditions that satisfy these requirements, DES will certify the EPA's NPDES Permit and will issue a State Surface Water Discharge Permit under RSA 485-A:13 ("Water Pollution and Waste Disposal/Water Discharge Permits", <http://gencourt.state.nh.us/rsa/html/L/485-A/485-A-13.htm>), which usually is identical to the federal permit. NPDES permits (and the corresponding State permit) are primarily issued to municipal and industrial wastewater treatment plants. Under Clean Water Act authority, EPA also issues general permits, such as the Construction Dewatering General Permit for temporary discharges of excavation water or dewatering well water at construction sites; the Water Treatment Plant General Permit for treated discharges of pre-sedimentation underflow, underflow from coagulation/settling using aluminum sulfate or polymers, or filter backwash (see <http://www.des.state.nh.us/factsheets/ws/ws-22-14.htm>); the Non-Contact Cooling Water General Permit for cooling water piped continuously from a water source through equipment to be cooled to the discharge point, with no chemicals added except for non-toxic pH neutralization chemicals; the Construction Federal Storm Water Permit to control the collection and treatment of construction activities where more than five acres (or, after March 10, 2003, more than one acre) have been altered; and the Multi-Sector Storm Water General Permit for storm water discharges associated with industrial activity. DES also inspects facilities that have received NPDES/State permits and reviews monthly discharge monitoring reports to ensure that these permitted facilities are in compliance with all applicable federal and state permit conditions.

## Wastewater Pretreatment Program

DES implements, through its Wastewater Engineering Bureau, a Pretreatment Program to ensure that industrial facilities which discharge to a municipal collection system pre-treat their wastewaters as necessary prior to discharge. This measure ensures that the industrial wastes will not pose a threat to human health or the environment, and also will not pose toxicity risks, in either strength or volume, to the beneficial organisms that actually break down the wastes during the treatment process at the wastewater treatment facility. Industrial facilities must obtain an Indirect Discharge Permit prior to discharging into a municipal collection system. This is accomplished by submitting an Industrial Pretreatment Discharge Permit Request, via the municipality in which the industrial facility is located, to the DES Pretreatment Coordinator (see <http://www.des.state.nh.us/factsheets/wwt/web-7.htm>, or E-mail at [gcarlson@des.state.nh.us](mailto:gcarlson@des.state.nh.us)). A Discharge Permit Request is required prior to any wastewater being released from a new industry, or prior to a change in wastewater characteristics (including an increase in flow) at an existing industry. The Discharge Permit Request and appropriate fee must be submitted to and approved by the municipality and the plans and specifications that accompany the Discharge Permit Request must be signed by a civil, sanitary, or chemical engineer registered to practice in the State of New Hampshire. Plans and specifications are required for such pretreatment systems as those prepared in-house by industry, package systems (single or multiple function), integration of “off the shelf” units, and custom pretreatment systems designed by a consultant. The Discharge Permit Request must be signed and authorized by the municipal official who is responsible for the operation and physical condition of the municipal wastewater treatment plant (including its sewers and pumping stations). This step provides assurances that the information submitted by the industry has been evaluated locally and found to be compatible with the wastewater treatment system and worker safety and that the discharge will not interfere with the facility’s continued operation or pass through to cause violations of water quality standards in the receiving water. The municipality’s sewer use ordinance is also evaluated to ensure that the municipality has sufficient authority to permit the discharge and enforce violations against industrial dischargers. Subsequent inspections are performed both at the industrial facility to ensure compliance with the permit and at the municipal wastewater treatment facility to check for proper tracking of the discharge and to ensure that adequate records are being maintained.

## Combined Sewer Overflows

Combined sewer overflows (“CSOs”) are pipes that collect both storm water and municipal wastewater (sewage). During dry weather, combined sewers convey wastewater to the municipal wastewater treatment facility where it is treated before being discharged to a receiving water. During rainstorms, however, large volumes of storm water may enter the combined sewer and rapidly fill the pipes. If the capacity of the combined sewer or wastewater treatment facility is exceeded, the combined sewer will overflow directly to surface waters and threaten public health and the environment. To address these issues, EPA issued a **CSO Control Policy** in 1994. This strategy consists of a two-step process. The first step is to determine the volume and strength of the combined sewer overflow discharge and its impact on the water quality of the receiving streams. If it is determined that the combined sewer overflows violate applicable state requirements, then the community is required to determine the most cost-effective solution to abate this pollution source. Berlin, Portsmouth, Lebanon, Manchester, and Nashua, and Exeter are currently in the process of addressing their CSOs. Solutions to the problem may include separating the flows so that sewage goes to the wastewater treatment facility and storm water goes to receiving streams, installing swirl concentrators with disinfection, or some other cost-effective method.

## Design Review

The Design Review Section of the DES Wastewater Engineering Bureau is responsible for reviewing plans and specifications for all public and private wastewater collection and domestic sewage treatment



systems (see <http://www.des.state.nh.us/wwe/review2.htm>). This section also reviews and issues permits for major new users of municipal treatment plants, assists small communities to assess wastewater treatment needs, and prepares environmental assessments for projects that are funded by the Clean Water Act's State Revolving Loan Fund. Additional responsibilities include reviewing of wastewater planning studies, municipal sewer use ordinances, user charge systems (see <http://www.des.state.nh.us/wwe/survey.htm>), and inter-municipal agreements. The Design Review Section has also prepared a "Standard Front End" package (see <http://www.des.state.nh.us/wwe/revforms.htm>) for use in preparing the bidding documents for the Clean Water State Revolving Loan Fund and State Aid Grant projects (see <http://www.des.state.nh.us/wwe/grants.htm>).

### **Consulting Engineer Pre-Qualification**

Any consulting engineering firm that intends to compete for engineering contracts for municipal water supply or wastewater projects that will receive federal or state funding assistance must be pre-qualified by DES (see <http://www.des.state.nh.us/wwe/engineer.htm>). The intent of this pre-qualification program is to ensure that engineering firms that vie for such municipal water or wastewater projects have the experience and capability to satisfactorily complete those contracts (see <http://www.des.state.nh.us/wwe/st5700.htm>). Pre-qualification requirements apply to all consulting engineering firms that wish to become pre-qualified and listed on the roster of pre-qualified consulting engineering firms (see <http://www.des.state.nh.us/wwe/roster.htm>). This list is maintained by DES for use by all municipalities who wish to solicit proposals for engineering services for water or wastewater projects that will use state or federal financial assistance.

### **Wastewater Treatment Facility Operations**

The Wastewater Operations Section of the DES Wastewater Engineering Bureau offers both technical assistance and operator training to support state-of-the-art wastewater treatment systems in New Hampshire. Wastewater treatment plant operators provide the hands-on work needed to manage microbiological processes and operate mechanical equipment at such facilities. They maintain pumps, pipes, valves, and processing equipment to move wastewater through collection systems and through various treatment processes. In addition to reading and interpreting meters and gauges and making operational adjustments as needed, they operate chemical-feeding devices, perform laboratory analyses, and maintain records of the operations. They must be familiar with electricity, electronics, mechanics, chemistry, microbiology, hydraulics, personal safety, and a host of other disciplines. Technical assistance is provided by DES in the following ways:

- Regular visits to the facilities are conducted to inspect and offer "one-on-one" training in all areas of plant operations and maintenance.
- Specific process control training and assistance is provided to enable a facility to return to, or maintain compliance with, the conditions of an NPDES/State Discharge Permit.
- Information-sharing is initiated among operators through the use of roundtable discussions, a wastewater newsletter, an annual trade fair, and through close involvement with the New Hampshire Water Pollution Control Association.
- Operator certification and training is provided in state-of-the-art techniques and practices.

### **Wastewater Treatment Operator Training (See <http://www.des.state.nh.us/wwe/opcert.htm>)**

RSA 485-A:5-a ("Water Pollution and Waste Disposal/Operator Certification Required", <http://gencourt.state.nh.us/rsa/html/L/485-A/485-A-5-a.htm>) requires wastewater treatment facilities to be operated only by operators who have been certified by DES pursuant to RSA 485-A:7-a through 7-d (see <http://gencourt.state.nh.us/rsa/html/L/485-A/485-A-7-a.htm>) and NH CODE ADMIN. RULES Env-Ws 901 ("Certification of Wastewater Treatment Plant Operators", <http://www.des.state.nh.us/rules/env900.pdf>). There are different levels of operator certification which have different education and experience requirements. Which level is required depends on factors such as the type and size of the facility and whether the operator

will be “in responsible charge” of the facility. The operator in responsible charge (“chief operator”) oversees the daily operation of the wastewater treatment facility and is held accountable for all plant operational duties, record keeping, and reporting. Each facility also must also designate and have a certified backup operator in responsible charge who will take over in the absence of the chief operator. To become certified, individuals must apply and either take an examination or request a reciprocal license based on being licensed in another state. Applications for reciprocity are reviewed by the five-member Certification Committee, which will evaluate the operator’s current out-of-state license that state’s certification requirements.

### **Sludge/Biosolids/Sludge Quality Certification**

The term “sludge” is used to describe the solid, semisolid, and liquid mixture of material residues produced as a result of water and wastewater treatment processes. As defined in RSA 485-A:2, XI-a (“Water Pollution and Waste Disposal/Definitions”, <http://gencourt.state.nh.us/rsa/html/L/485-A/485-A-2.htm>), it includes industrial sludge and sludge mixtures, but does not include domestic septage or sludge disposed at solid waste management facilities. The term “biosolids” is defined in RSA 485-A:2, XXII as *any sludge derived from a municipal wastewater treatment facility that meets the standards for beneficial reuse specified by the department*. DES has developed a Sludge Quality Certification program, which requires sludge to be treated to reduce pathogens and other harmful constituents to levels at or below the established standards. If the sludge generator successfully obtains this certification, it will clear the way for the resulting biosolids to be land-applied as a beneficial reuse alternative to disposal at permitted solid waste landfill or combustion facilities (producing an ash residue that must be land-disposed), which consumes expensive (and limited) final disposal capacity. DES regulates the removal, transportation, and disposal (or beneficial reuse of) sludge and biosolids under RSA 485-A:4, XVI-b (“Water Pollution and Waste Disposal/Duties of Department”, <http://gencourt.state.nh.us/rsa/html/L/485-A/485-A-4.htm>) and NH CODE ADMIN. RULES Env-Ws 800 (“Sludge Management Rules”, <http://www.des.state.nh.us/rules/envws800.pdf>). Some aspects of sludge management are also regulated by the EPA pursuant to 33 U. S. C. 1251 *et seq.* (“Clean Water Act”, <http://www4.law.cornell.edu/uscode/33/ch26.html>) and 40 CFR Part 122, Part 257, and Part 503 (“Environmental Protection Agency Regulations”, <http://www.epa.gov/docs/epacfr40/chapt-I.info/subch-O.htm>).

### **Sludge/Biosolids Transport/Disposal**

With the exception of Class A biosolids (which are not regulated as to end use), DES regulates the entire scope of (*i.e.*, “cradle-to-grave”) processing, transportation, disposal, and beneficial use of sludge and biosolids to ensure that these materials are used or disposed in an environmentally sound manner. Whenever possible, recycling through the regulated beneficial use of biosolids for land application, or composting for nutrient value and soil conditioning, is promoted by DES. If land application of Class B biosolids is proposed, DES will conduct a site visit prior to permit issuance to assess site suitability, including setbacks to surface waters, residences, drinking water wells, and other sensitive receptors. If a permit is issued, DES inspectors will review biosolid management activities during random site visits and in response to complaints. Vehicles that carry sludge must be registered with DES and are subject to routine inspection for cleanliness, water-tightness, and roadworthiness. There are four different types of permits/certification that are required to manage sludge properly in New Hampshire: Sludge Quality Certification, Sludge Hauler Permit, Sludge Facility Permit, and/or the Sludge Site Permit.

### **Septage**

The term “septage” is used to describe the liquids and solids that are pumped from a septic tank or cesspool. The term also applies to the waste pumped out of holding tanks, boat toilets and other portable toilets. DES regulates the removal, transportation, and disposal (including beneficial use) of septage in New Hampshire pursuant to RSA 485-A:4, XVI-a (“Water Pollution and Waste Disposal Act/Duties of Department”, <http://gencourt.state.nh.us/rsa/html/L/485-A/485-A-4.htm>) and NH CODE ADMIN. RULES Env-Ws 1600 (“Septage Management Rules”, <http://www.des.state.nh.us/rules/envws1600.pdf>). The EPA also regulates septage under



33 U. S. C. Section 1251 *et seq.* (1977) (“Clean Water Act”, <http://www4.law.cornell.edu/uscode/33/ch26.html>) and 40 CFR Parts 122, 257, and 503 (“Environmental Protection Agency Regulations”, <http://www.epa.gov/epacfr40/chapt-I.info/chi-toc.htm>).

## **Septage Transport/Disposal**

DES regulates the removal, transportation, and disposal of septage to ensure that the material is used or disposed in an environmentally sound manner. Whenever possible, recycling through the beneficial use of septage by land application is promoted by DES. Disposal of septage at a publicly-owned wastewater treatment facility adds significantly to the volume of resulting sludge generated, a residual that also must also be dealt with by being land-applied, burned at an incinerator (with subsequent ash residue disposal), or disposed at a permitted solid waste landfill. Septage lagoons serve only as a temporary solution, since the accumulated solids must eventually be excavated and properly disposed or beneficially reused. Land application practices adhere to accepted agronomic guidelines and make use of nutrients that may have otherwise been discarded. There are four different types of permits or registrations that are required for the proper management of septage in New Hampshire: Septage Hauler Permit, Septage Holding Tank Registration, Septage Storage Facility Permit, and a Septage Site Permit.

## **Summary**

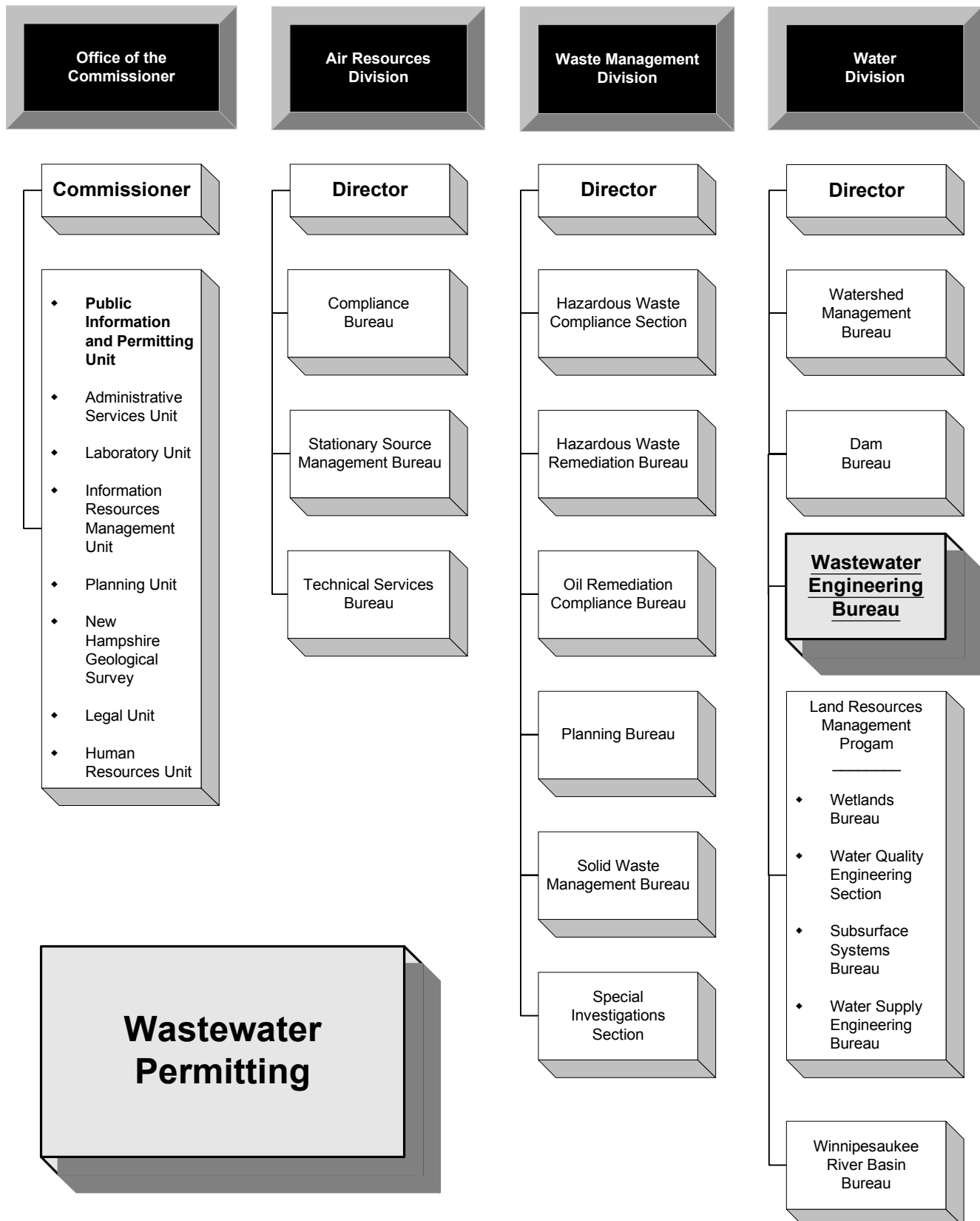
The DES Wastewater Engineering Bureau is charged with the primary responsibility for regulating the design, construction, operation, and maintenance of wastewater treatment systems and the removal, transportation, and disposal (or beneficial use) of associated residuals across New Hampshire (see <http://www.des.state.nh.us/www/>). Appeals of permit decisions or orders issued for violations of program requirements should be directed to the Water Council (see [www.des.state.nh.us/councils/#1](http://www.des.state.nh.us/councils/#1)).

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# Organizational Chart

## *New Hampshire Department of Environmental Services*



## Sewer Connection Permit

**Introduction:** Any proposed connection and discharge of domestic wastewater to a municipal sewer in excess of 5,000 gallons per day is subject to prior review and approval by DES. This measure protects public health and the environment by helping to ensure that municipal sewers and sewage treatment plants do not exceed their design hydraulic and treatment capacities. This review process also lessens the likelihood of future treatment facility disruptions (e.g., sludge bulking, excessive flows, etc.), National Pollutant Discharge Elimination System ("NPDES") Permit violations, and receiving water degradation. An applicant must obtain a copy of the DES *Application for Sewer Connection Permit* (see <http://www.des.state.nh.us/wwe/dprapp.pdf>) to request DES authorization to connect and discharge the proposed domestic wastewater source to a municipal sewer system. Note that the application must be signed by an authorized municipal official (typically the City Engineer, Board of Selectmen, or Public Works Director) to verify local approval. Applications need not be submitted for domestic connections smaller than 5,000 gallons per day provided that no new sewerage construction is proposed. A separate Industrial Wastewater Discharge Permit Request is required for industrial waste contributions, regardless of quantity or quality (see <http://www.des.state.nh.us/wwe/dprapp.pdf>).

**Average number of permits issued annually:** 100

**Fees:** \$50 application fee. Fee payment is not required for connection requests by state agencies, county or municipal governments, sewer districts, or school districts.

**Estimated processing time after application is deemed "complete":** 1-3 weeks

**Permit duration:** The approved Sewer Connection Permit must be exercised within two years from the date of issuance.

**Permit transferability:** The approved Sewer Connection Permit is transferable upon written request, subject to local concurrence.

**Permit modification:** Minor revisions to the Sewer Connection Permit may be considered upon written request to DES, subject to local concurrence.

**Permit renewal:** The Sewer Connection Permit is eligible for a one-time extension for one additional year upon written request with explanation to DES, subject to local concurrence.

**State statute:** RSA 485-A:4, VI, IX, and IX-a through IX-c ("Water Pollution and Waste Disposal/Duties of Department", <http://gencourt.state.nh.us/rsa/html/indexes/485-A.html>)

**N. H. Code of Administrative Rules:** Env-Ws 700 ("Standards of Design and Construction for Sewerage and Wastewater Treatment Facilities", <http://www.des.state.nh.us/rules/env700.pdf>)

**Appeals body:** Water Council at RSA 21-O:7 ("Department of Environmental Services", <http://gencourt.state.nh.us/rsa/html/21-O/21-O-7.htm>; see also <http://www.des.state.nh.us/rules/env-wc200.pdf> and <http://www.des.state.nh.us/councils/#1>)

**Additional information:** N. H. DES, Wastewater Engineering Bureau, (603) 271-3908  
N. H. DES, Public Information Center, (603) 271-2975 and (603) 271-8876



## Sewer Connection Permit – Work Sheet

**Key Qualifier Question:** *Will this project result in the connection of a discharge of 5,000 gallons per day (or more) of domestic wastewater to the municipal collection and treatment system? Will the project include new sewerage construction (for any volume of discharge)?*

**Note:** Municipal wastewater collection and treatment facilities are designed, constructed, and operated to accommodate a specified maximum wastewater flow rate. Accordingly, such facilities have limited capacity to accept new wastewater contributions without disrupting system function and/or efficiency. To protect public health and the environment, major new wastewater contributions must first be reviewed and approved by DES. Any wastewater contribution of 5,000 gallons per day or more (average daily flow) is considered to be a major contribution, and therefore subject to DES review and approval.

### What must you do to apply?

- Obtain a copy of the *Application for Sewer Connection Permit* from the DES Wastewater Engineering Bureau, DES Public Information Center, or online at <http://www.des.state.nh.us/wwe/dprapp.pdf>
- Provide all pertinent project information or design calculations that will assist DES in its review.
- Have an authorized municipal official sign the Sewer Connection Permit Application.
- Submit a check or money order for \$50 made payable to “Treasurer, State of New Hampshire” along with the application form, fee, and all supporting materials to: Wastewater Engineering Bureau, Water Division, New Hampshire Department of Environmental Services, 6 Hazen Drive, P. O. Box 95, Concord, NH 03302-0095. Telephone: (603) 271-3908; fax: (603) 271-4128; or online: at <http://www.des.state.nh.us/wwe/review2.htm>

### What types of projects require this permit?

- ❖ A proposed restaurant or other commercial establishment that is expected to contribute domestic wastewater to the municipal collection system in an amount of 5,000 gallons/day or more
- ❖ An existing restaurant or other commercial establishment that proposes to expand its operation, increasing its average daily wastewater discharge by 5,000 gallons/day or more
- ❖ Any other proposed wastewater connection or discharge in excess of 5,000 gallons per day
- ❖ Any proposed wastewater connection or other discharge to a wastewater treatment facility operating in excess of 80 percent of its design flow capacity
- ❖ Any proposed connection or other discharge of industrial wastewater, regardless of its quality or quantity
- ❖ Any project which will involve construction of new sewerage, regardless of the volume of wastewater to be discharged

If there are questions regarding this page or any other section of the Guidebook, please contact Tim Drew, Administrator, Public Information and Permitting Unit, at [tdrew@des.state.nh.us](mailto:tdrew@des.state.nh.us) or at (603) 271-3306.



## Sewerage Design Review/Letter of Approval

**Introduction:** Under New Hampshire law, DES is required to review and approve (prior to installation) the engineering design plans and specifications for all proposed sewerage facilities and wastewater treatment facilities including sanitary sewers, pumping stations and treatment plants, whether publicly or privately owned (see <http://www.des.state.nh.us/factsheets/wwt/web-3.htm>). The intent of this approval is to protect the environment and public health by ensuring the proper design, construction, and operation of wastewater collection and treatment facilities in the state. Designs must be submitted at least 30 days prior to construction; DES then reviews the plans for compliance with minimum State standards of design and construction. Sewerage designs submitted to DES for review are subject to fees that are derived as a function of design wastewater flow.

**Average number of letters of approval issued annually:** 150

**Fees:** Review fee is based on the project's estimated wastewater flow rate; currently assessed at \$0.10 per gallon/day for average daily flows up to 10,000 gallons/day, with an additional \$0.05 per gallon/day for any flow in excess thereof. State agencies, county or municipal governments, school districts or sewer districts are not required to pay the fee, but still must submit design plans for review (see <http://www.des.state.nh.us/factsheets/wwt/web-4.htm>).

**Estimated processing time after application is deemed "complete":** Average 2-4 weeks (Longer for large and/or more complex sewerage projects.)

**Letter of Approval duration:** Construction/installation of the approved sewerage must commence within two years of the date of DES design approval.

**Letter of Approval transferability:** Design approval is transferable upon written request to DES, subject to local concurrence.

**Letter of Approval modification:** Modified design sheets must be submitted to DES for review/approval prior to any installation. Municipal notification and concurrence may be required for major modifications. Gross or multiple design modifications may subject the design to re-submittal as a new project.

**Letter of Approval renewal:** Letter of Approval remains effective for a period of two years, and is eligible upon written request for a one-time extension for one additional year, subject to local concurrence.

**State statutes:** RSA 485:8, V ("New Hampshire Safe Drinking Water Act/Approval of Construction Plans", <http://gencourt.state.nh.us/rsa/html/L/485/485-8.htm>) and RSA 485-A:4, VI, IX, and IX-a through IX-c; ("Water Pollution and Waste Disposal/Duties of Department", <http://gencourt.state.nh.us/rsa/html/indexes/485-A.html>)

**N. H. Code of Administrative Rules:** Env-Ws 700 ("Standards of Design and Construction for Sewerage and Wastewater Treatment Facilities", <http://www.des.state.nh.us/rules/env700.pdf>)

**Appeals body:** Water Council at RSA 21-O:7 ("Department of Environmental Services/Water Council", <http://gencourt.state.nh.us/rsa/html/I/21-O/21-O-7.htm>; see also <http://www.des.state.nh.us/rules/env-wc200.pdf> and <http://www.des.state.nh.us/councils/#1>)

**Additional information:** N. H. DES, Wastewater Engineering Bureau, (603) 271-3908  
N. H. DES, Public Information Center, (603) 271-2975 or (603) 271-8876



## Sewerage Design Review/Letter of Approval – Work Sheet

**Key Qualifier Question:** Does your project include the construction or installation of wastewater collection, conveyance, or treatment facilities such as sanitary sewers, pumping stations, or treatment/disposal facilities?

### What must you do to apply?

- Prepare two sets of sewerage design drawings and technical specifications, stamped by a registered professional engineer licensed to practice in New Hampshire. Follow the detailed guidance provided in NH CODE ADMIN. RULES Env-Ws 700 (“Standards of Design and Construction for Sewerage and Wastewater Treatment Facilities”, <http://www.des.state.nh.us/rules/env700.pdf>).
- Obtain a copy of the *Application for Sewer Connection Permit* from the DES Wastewater Engineering Bureau, DES Public Information Center or online at <http://www.des.state.nh.us/wwe/dprapp.pdf>, complete it, and have it signed by an authorized municipal official.
- Calculate the appropriate review fee and prepare a check or money order made payable to “Treasurer, State of New Hampshire”. The review fee is calculated as a function of project wastewater flow rate, and is currently assessed at a rate of \$0.10 per gallon/day for average daily wastewater flows up to 10,000 gallons/day, and an additional \$0.05 per gallon/day for any flow in excess thereof.
- Provide and explain any pertinent design calculations and their rationale, such as population/flow estimates, sizing calculations, system curves, catalog cuts, *etc.* and any other information that may assist DES in assessing the plan’s compliance with state minimum design standards.
- Submit the application, appropriate fee, design plans/specifications, and other supporting materials to: Wastewater Engineering Bureau, Water Division, New Hampshire Department of Environmental Services, 6 Hazen Drive, P. O. Box 95, Concord, NH 03302-0095. Telephone: (603) 271-3908; fax: (603) 271-4128; or online: <http://www.des.state.nh.us/wwe/review2.htm>

### What types of projects require this letter of approval?

- ❖ Proposed sanitary sewers serving a new office park or a new housing/condominium development
- ❖ A pumping facility or sewer line serving two or more occupied buildings not under same ownership
- ❖ An extension of the municipal sewer to serve additional homes
- ❖ The on-site sewers of a shopping mall or office park, which collect service lines

(Note: An individual service line extending from a building to the street sewer is not considered a sanitary sewer subject to review/approval under this section (see <http://www.des.state.nh.us/factsheets/wwt/web-1.htm>).

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If there are questions on this page or any other section of the Guidebook, please contact Tim Drew, Administrator, Public Information and Permitting Unit, at [tdrew@des.state.nh.us](mailto:tdrew@des.state.nh.us) or at (603) 271-3306.



## Industrial Wastewater Discharge Permit Request/Approval

**Introduction:** Over the past three decades, New Hampshire's wastewater treatment facilities have operated with ever-increasing efficiency due, in part, to the early review of new discharges before they join the overall waste stream. In many cases, this means the removal (by pretreatment) of potentially toxic components from incoming flows that could damage or destroy the microorganisms responsible for the efficient breakdown of waterborne wastes at a wastewater treatment facility. Prior to discharging wastewater into a municipal sewer, all industries and commercial enterprises must ensure that their discharge volume and pollutant characteristics are such that they will not endanger the health and safety of workers, interfere with the operation of the sewer system or wastewater treatment facilities, cause the municipal system to violate its discharge permit requirements, or cause a degradation of the sludge produced so that it cannot be reclaimed or otherwise safely disposed. The entity proposing a new discharge initiates the evaluation process by requesting a review by the municipality (see <http://www.des.state.nh.us/wwe/dprapp.pdf>), typically the local sewer commission or municipal engineer's office, which then collaborates with DES. The submittal, review, and approval process for an Industrial Wastewater Discharge Permit Request ("DPR") serves as the mechanism for assuring compliance with the requirements specified in NH CODE ADMIN. RULES Env-Ws 904 (see <http://www.des.state.nh.us/rules/adptd904.pdf>). Review and characterization of a proposed new (or revised) industrial discharge is completed for both effluent quality and quantity. If the proposed wastewater discharge does not meet applicable local, state, or federal discharge limits in an untreated condition and the process cannot be modified such that the untreated discharge does meet the requirements, the design and installation of an onsite pretreatment system will be necessary. The wastewater pretreatment system design must be prepared and certified by a professional engineer licensed to practice in the state of New Hampshire, and then be submitted for approval along with the DPR. Upon approval by DES, the municipality will issue a discharge permit that provides the legal authority for the discharge, sets flow and pollutant limits, and imposes monitoring and reporting requirements on the facility's operators. Each company that requests a DPR must already have, or simultaneously request a DES Sewer Connection Permit (see <http://www.des.state.nh.us/wwe/review2.htm>).

**Average number of requests approved annually:** 50

**Fees:** \$1,000 when plans and specifications are submitted relative to the installation of a wastewater pretreatment facility; \$50 when plans and specifications are not required

**Estimated processing time after application is deemed "complete":** 2-4 weeks

**Approval duration:** Unlimited, until or unless superseded by approval of a new application, necessitated by an increase in either flow volume (quantity) or types of pollutants (quality).

**Approval transferability:** The DPR Approval is transferable upon notification to the municipality and DES.

**Approval modification:** Not applicable. Facility must reapply.

**Approval renewal:** Not applicable. (Local discharge permits must be renewed with municipality as specified by local requirements.)

**State statute:** RSA 485-A:4, VI, IX, and IX-a through IX-c; ("Water Pollution and Waste Disposal/Duties of Department", <http://gencourt.state.nh.us/rsa/html/L/485-A/485-A-4.htm>)

**N. H. Code of Administrative Rules:** Env-Ws 904 ("Standards for Pretreatment of Industrial Wastewater Rules", <http://www.des.state.nh.us/rules/adptd904.pdf>)

**Appeals body:** Water Council at RSA 21-O:7 ("Department of Environmental Services/Water Council", <http://gencourt.state.nh.us/rsa/html/I/21-O/21-O-7.htm>; see also <http://www.des.state.nh.us/rules/env-wc200.pdf> and <http://www.des.state.nh.us/councils/#1>)

**Additional Information:** N. H. DES, Wastewater Engineering Bureau, (603) 271-2052  
N. H. DES, Hazardous Waste Compliance Section, (603) 271-2942



## Industrial Wastewater Discharge Permit Request/Approval - Work Sheet

**Key Qualifier Questions:** If the answer is “yes” to any of the following questions, you will be required to file a DPR or take other actions indicated below.

- ✓ Do you plan to discharge process wastewater that is new, or changed in quality or quantity, to a municipal sewer or wastewater treatment plant?
- ✓ Will the process discharge contain materials such as oils, greases, heavy metals, volatile organic compounds, suspended solids, solvents, biocides or pesticides known to be toxic or hazardous to human/plant/animal life or aquatic habitats?
- ✓ Does your industry fall under the requirements of the National Categorical Pretreatment Standards?
- ✓ See <http://www.epa.gov/docs/epacfr40/chapt-I.info/subch-N.htm>.
- ✓ Will the discharge require an engineered wastewater pretreatment system to meet the discharge limits set by the municipal sewer use ordinance or federal categorical standards?
- ✓ Will the discharge exhibit characteristics such as a pH of less than 2.0 or greater than 12.5, corrosivity, fume or odor production, high temperature, high biological or chemical oxygen demand, or resistance to biodegradation? If the answer is “yes”, you will be required to obtain a DPR and possibly other permits such as a Hazardous Waste Limited Permit. See the “Hazardous Waste” chapter of this Guidebook for more details.

### What must you do to apply?

- Contact the municipal wastewater superintendent or pretreatment coordinator (see local directory), and the DES Industrial Pretreatment Supervisor at (603) 271-2052.
- Obtain a copy of the *Industrial Wastewater Discharge Permit Request (DPR) Application* from the community, DES Industrial Pretreatment Supervisor, DES Public Information Center, or online at <http://www.des.state.nh.us/www/dprapp.pdf> and follow the instructions on the back of the form.
- Provide the name of the municipality where the facility will discharge, prior/new/total flow volume discharges, and approval of the discharge by signature of an authorized municipal official.
- Provide the industry name and identify the personnel authorized to respond to questions regarding the request.
- Provide the Standard Industrial Classification (“SIC”) Code, the national categorical standards to which the company may be subject (see <http://www.epa.gov/docs/epacfr40/chapt-I.info/subch-N.htm>), average flows of domestic wastes and process discharges and the timing and duration of same, and a schematic of any proposed treatment process.
- Prepare plans, specifications, and operation and maintenance procedures, signed by a registered professional engineer licensed to practice in the state of New Hampshire, which show new or modified treatment operations at the site that may impact, or existing treatment works designed to redirect the discharge to, the local wastewater treatment facility.
- Provide a schematic of the production process, origin and analyses of each waste stream, toxicity and treatability information, a location map showing the industry and its relationship to the local wastewater treatment facility, a list of all chemicals used at the industrial facility, a description and location diagram of all sampling locations at the industrial facility, a narrative on efforts to reduce water use and implement pollution prevention techniques, and a list of environmental permits held by the facility.
- Submit the form and the appropriate fee to DES (**through the municipality**): Industrial Pretreatment Supervisor, Wastewater Engineering Bureau, Water Division, New Hampshire Department of Environmental Services, 6 Hazen Drive, P. O. Box 95, Concord, NH 03302-0095. Telephone: (603) 271-2052; fax: (603) 271-4128; or email: [gcarlson@des.state.nh.us](mailto:gcarlson@des.state.nh.us).

### **What types of projects require this approval?**

- ❖ A business or industry that will discharge process or "industrial" waste to the municipal sewer system (*i.e.*, wastes other than lavatory or sanitary wastes)
  - ❖ An existing manufacturer planning to change a manufacturing process such that the discharge to the municipal sewer will have different chemicals, additional pollutant concentration, or increased volume
  - ❖ Addition of a new, or modification of an existing, process wastewater treatment system having a discharge to the municipal sewer
  - ❖ The introduction of a new process waste stream to the pretreatment system, or directly to the municipal sewer
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If there are questions regarding this page or any other section of the Guidebook, please contact Tim Drew, Administrator, Public Information and Permitting Unit, at [tdrew@des.state.nh.us](mailto:tdrew@des.state.nh.us) or at (603) 271-3306.

## National Pollutant Discharge Elimination System/State Surface Water Discharge Permit

Introduction: Each receiving water (e.g., river, stream, estuary, or ocean) in the state possesses unique, finite limits as to the volume and strength of wastewater it can assimilate over time. Once the limits are surpassed, the receiving water will no longer meet surface water quality standards, thereby posing a danger to human health and safety and the habitat of aquatic plants, fish, and water-dependent birds and animals. Point source discharges to surface waters are regulated by the National Pollutant Discharge Elimination System ("NPDES") Permits issued pursuant to Section 402 of the federal Clean Water Act (see <http://www4.law.cornell.edu/uscode/33/ch26.html>) and by State Surface Water Discharge Permits issued pursuant to RSA 483-A:13, I ("Water Pollution and Waste Disposal/Water Discharge Permits", <http://gencourt.state.nh.us/rsa/html/L/485-A/485-A-13.htm>). Any discharge of wastewater through pipes, ditches, conduits, or other conveyances to surface waters of the state requires a joint federal/state permit to assure that water quality standards are not violated and to prevent degradation by releases of sediments, nutrients, elevated temperature, toxic metals, microorganisms, inorganic and organic chemical compounds. The U. S. Environmental Protection Agency ("EPA") issues NPDES permits, since New Hampshire does not have primacy to administer this program. DES's role in the NPDES process is to certify that the limitations and conditions contained in the federal permit will not violate any State requirements. DES also issues a State Surface Water Discharge Permit that usually is identical to the federal permit. The federal and state permits typically are issued concurrently. Evaluation of the applications for these permits includes a check for consistency with state and federal antidegradation provisions and surface water quality standards specified in NH CODE ADMIN. RULES Env-Ws 1700 (see <http://www.des.state.nh.us/wmb/env-ws1700.pdf>). Both permits contain specific conditions and limitations on the quality and quantity of proposed municipal and industrial discharges to the state's surface waters (see <http://www.epa.gov/docs/epacfr40/chapt-I.info/subch-N.htm>). The total maximum daily load ("TMDL") has become a useful tool in setting limits on discharges to several receiving across the state. The owner/operator of a drinking water system, where wastewater generated as a result of the collection, distribution, or treatment of drinking water is to be discharged directly to surface waters, also must first obtain an NPDES Permit from EPA and a State Surface Water Discharge Permit from DES (see <http://www.des.state.nh.us/factsheets/ws/ws-22-14.htm>). Discharge of treated pre-sedimentation underflow, treated underflow from the coagulation/settling processes using aluminum compounds or polymers as coagulants, and treated filter backwash water can only be discharged to surface waters in accordance with the conditions and limits of an NPDES Permit that is DES-certified. Some types of water system wastewaters can be managed by first obtaining an EPA NPDES Permit Exclusion coupled with a DES Temporary Surface Water Discharge Permit. NPDES Permits also are now required for the discharge of storm water from certain commercial, industrial, and municipal facilities and for construction dewatering at certain sites. EPA has issued "General Permits" that many facilities can be covered by with notice to EPA rather than having to apply for (and obtain) site-specific or facility-specific NPDES permits (see <http://www.des.state.nh.us/factsheets/wwt/web-8.htm>).

**Average number of permits issued annually:** Approximately 15

**Fees:** None

**Estimated processing time after application is deemed "complete."** 12-18 months for individual permits; 2 months for general permits; less than one month for storm water or construction dewatering general permits

**Permit duration:** 5 years (State Surface Water Discharge Permits run concurrently with federal permits and both expire simultaneously, in accordance with 40 CFR Part 122.46.)

See [http://www.access.gpo.gov/nara/cfr/cfrhtml\\_00/Title\\_40/40cfr122\\_main\\_00.html](http://www.access.gpo.gov/nara/cfr/cfrhtml_00/Title_40/40cfr122_main_00.html).

**Permit transferability:** Minimum of 30 days' written notice to EPA (with a copy to DES)

**Permit modification:** Submit a letter of request to EPA, with a copy to DES (40 CFR Part 122.62). See [http://www.access.gpo.gov/nara/cfr/cfrhtml\\_00/Title\\_40/40cfr122\\_main\\_00.html](http://www.access.gpo.gov/nara/cfr/cfrhtml_00/Title_40/40cfr122_main_00.html).

**Permit renewal:** Submit federal and state applications to EPA and DES at least 180 days before the existing permit expires [40 CFR Part 122.21(d) and Env-Ws 404.02] see [http://www.access.gpo.gov/nara/cfr/cfrhtml\\_00/Title\\_40/40cfr122\\_main\\_00.html](http://www.access.gpo.gov/nara/cfr/cfrhtml_00/Title_40/40cfr122_main_00.html) and <http://www.des.state.nh.us/rules/ws400-405.pdf>

**State statute:** RSA 485-A:13 ("Water Pollution and Waste Disposal/Water Discharge Permits", <http://gencourt.state.nh.us/rsa/html/indexes/485-A.html>)

**Federal law:** 33 U. S. C. 1251 et seq. ("Clean Water Act of 1987, as amended", <http://www4.law.cornell.edu/uscode/33/ch26.html>)

**N.H. Code of Administrative Rules:** Env-Ws 401-405 ("Surface Water Discharge Permit Regulations", <http://www.des.state.nh.us/rules/ws400-405.pdf>) and Env-Ws 1700 ("Surface Water Quality Regulations", <http://www.des.state.nh.us/wmb/env-ws1700.pdf>)

**U. S. Code of Federal Regulations:** 40 CFR Part 122, Chapter I ("Environmental Protection Agency Regulations", [http://www.access.gpo.gov/nara/cfr/cfrhtml\\_00/Title\\_40/40cfr122\\_main\\_00.html](http://www.access.gpo.gov/nara/cfr/cfrhtml_00/Title_40/40cfr122_main_00.html))

**Appeals body:** Water Council at RSA 21-O:7 ("Department of Environmental Services/Water Council", <http://gencourt.state.nh.us/rsa/html/I/21-O/21-O-7.htm>; see also <http://www.des.state.nh.us/rules/env-wc200.pdf> and <http://www.des.state.nh.us/councils/#1>)

**Additional Information:** N. H. DES, Wastewater Engineering Bureau, (603) 271-2984  
U. S. EPA, Municipal Assistance Unit, (617) 918-1545  
U. S. EPA, Storm Water Program, (617) 918-1615

# National Pollutant Discharge Elimination System/State Surface Water Discharge Permit – *Work Sheet*

**Key Qualifier Question:** *Will the proposed project require a discharge of wastewater, storm water associated with industrial activity, storm water from a construction site, or groundwater or cooling water from commercial, industrial or municipal (domestic) sources through a point-source (pipe, ditch, channel, tunnel, etc.) to a surface water (river, lake, ocean, marsh, wetland, intermittent stream, etc.)?*

## What are the first steps that you should take?

- Determine whether a General NPDES Permit or a DES Temporary Surface Water Discharge Permit (“TSWDP”) is appropriate. The TSWDP and the available General NPDES Permits are described on the next page.
- If a general permit is appropriate, send a notice of intent (“NOI”) letter application to EPA. For storm water general permits, the NOI forms must be sent to the address on the form. With the exception of the NOI for the general storm water permits, send a copy of all NOIs to the DES Wastewater Engineering Bureau, New Hampshire Department of Environmental Services, 6 Hazen Drive, P. O. Box 95, Concord, NH 03302-0095. Telephone: (603) 271-2984; fax: (603) 271-4128; or online: <http://www.des.state.nh.us/wwel/>.
- If a Temporary Surface Water Discharge Permit (“TSWDP”) is appropriate, obtain an application at the following Web address: <http://www.des.state.nh.us/orcb/doclist/tmposwapp.pdf> or contact the DES TSWDP Coordinator by telephone at (603) 271-3644.
  - If the project will involve groundwater remediation, pump-and-treat systems, or petroleum storage tank replacements, submit the original TSWDP permit application to: Site Remediation Programs, Waste Management Division, New Hampshire Department of Environmental Services, 6 Hazen Drive, P. O. Box 95, Concord, NH 03302-0095. Telephone: (603) 271-3644; fax: (603) 271-2181; or online: [http://www.des.state.nh.us/orcb\\_hwrb.htm](http://www.des.state.nh.us/orcb_hwrb.htm)
  - If the project will involve drinking water well/system rehabilitation, dewatering, or maintenance projects, submit the original TSWDP permit application to: Water Supply Engineering Bureau, Water Division, New Hampshire Department of Environmental Services, 6 Hazen Drive, P. O. Box 95, Concord, NH 03302-0095. Telephone: (603) 271-2858; fax: (603) 271-5171; or online: <http://www.des.state.nh.us/dwspp/gwdisch.htm>
  - Refer also to the description of the Temporary Surface Water Discharge Permit in the “Surface Water” chapter of this *Guidebook*.

## What must I do to apply for an individual permit?

- If coverage under a TSWDP or general permit is not appropriate, then an individual NPDES permit is necessary. For an individual permit, contact EPA in Boston at (617) 918-1545 to obtain a copy of the appropriate application (see [http://cfpub1.epa.gov/npdes/permitissuance/apptool.cfm?program\\_id=1](http://cfpub1.epa.gov/npdes/permitissuance/apptool.cfm?program_id=1)).
- Send the completed federal application forms to EPA at the following address: Municipal Assistance Unit, Office of Ecosystem Protection (Mail Code CMU), One Congress Street, Suite 1100, Boston, MA 02114-2023.

- Send a copy of the federal application forms and copies of any supplemental information requested by EPA to DES at: Wastewater Engineering Bureau, Water Division, New Hampshire Department of Environmental Services, 6 Hazen Drive, P. O. Box 95, Concord, NH 03302-0095.
- Contact DES at (603) 271-3908 to obtain an application for the State Surface Water Discharge Permit. The applications requirements are specified in Env-Ws 405.01(b) (“Surface Water Discharge Permit Regulations”, <http://www.des.state.nh.us/rules/ws400-405.pdf>).
- New dischargers may be required to supply DES with in-stream water quality information pursuant to Env-Ws 405.01(e) and Env-Ws 1708 (Antidegradation). (See Env-Ws 1700, “Surface Water Quality Regulations”, <http://www.des.state.nh.us/wmb/env-ws1700.pdf>). Contact DES if a new discharge of industrial or domestic wastewater is proposed.

**What types of projects require this permit?** (<http://www.epa.gov/docs/epacfr40/chapt-I.info/subch-N.htm>)

- A new industrial facility that is built on 10 acres of land and will have a manufacturing process that will require wastewater disposal. Both a general storm water permit (construction greater than 5 acres, one acre after March 10, 2003) and an individual NPDES permit are necessary.
- An existing commercial facility that installs a closed-loop cooling system for a new process located partly outdoors. Although no permit is required for the cooling water, the applicant must file an NOI for the Multi-Sector General NPDES Permit if the new process is listed as an “industrial activity” in 40 CFR Part 122.26(b) (14).  
See [http://www.access.gpo.gov/nara/cfr/cfrhtml\\_00/Title\\_40/40cfr122\\_main\\_00.html](http://www.access.gpo.gov/nara/cfr/cfrhtml_00/Title_40/40cfr122_main_00.html).
- A leaking underground petroleum storage tank located at a town highway garage is to be removed and the excavation must be dewatered before a new tank can be installed. Application for a TSWDP must be made, rather than using the construction dewatering general permits.

**What types of projects qualify for TSWDP or general NPDES permit coverage?**

(Note: Use the link <http://www.epa.gov/fedrgstr/> to find the specific reference and text of the Federal Register needed. Once you reach the date desired, simply select “HTML” or “PDF” to view the specific federal regulations. For your convenience, the direct links to specific pages have already been provided below by this method.)

- ❖ A TSWDP must be obtained for any treated discharges of groundwater contaminated with petroleum products. An *NPDES Permit Application-Incident Notification Report* to obtain a “temporary exclusion”, or a letter from an EPA “On Scene Coordinator” waiving the requirement to obtain an NPDES permit, must be obtained before DES will grant a TSWDP. To obtain such a waiver, contact the EPA at: NPDES Program, Office of Ecosystem Protection (Mail Code CPE), U. S. Environmental Protection Agency, JFK Federal Building, Boston, MA 02203, call EPA at (617) 918-1551, or contact online at <http://cfpub1.epa.gov/npdes/>. (See also <http://www.des.state.nh.us/factsheets/ws/ws-22-14.htm>).
- ❖ Construction (groundwater) Dewatering General Permit for temporary discharges of excavation water or dewatering well water at construction sites. See pages 19284 through 19295 of Federal Register dated May 1, 1996 (see <http://www.epa.gov/docs/fedrgstr/EPAFR-CONTENTS/1996/May/Day-01/>). Notice of intent application (NOI) requirements can be found on page 19286.
- ❖ Water Treatment Plant General Permits for treated discharges of pre-sedimentation underflow, underflow from coagulation/settling using aluminum or polymers, and filter backwash. See



pages 69000 through 69013 of Federal Register dated November 15, 2000 <http://www.epa.gov/fedrgstr/EPAFR-CONTENTS/2000/November/Day-15/contents.htm>. NOI requirements are found on page 69006. (See also <http://www.des.state.nh.us/factsheets/ws/ws-22-14.htm>)

- ❖ Non-Contact Cooling Water (NCCW) General Permit for cooling water piped continuously from a water source, through equipment to be cooled, to the discharge point, and with no chemical additives except for non-toxic pH neutralization chemicals (NaOH, H<sub>2</sub>SO<sub>4</sub>). An individual permit should be sought if the above conditions are not met, or if the 68 degrees Fahrenheit or 83 degrees Fahrenheit temperature limits for cold and warm water fisheries, respectively, (as determined by the NH Fish and Game Department) cannot be met. See pages 24195 through 24211 of Federal Register dated April 25, 2000 (see <http://www.epa.gov/fedrgstr/EPAFR-CONTENTS/2000/April/Day-25/contents.htm>). NOI requirements are found on page 24204.
- ❖ Multi-Sector Storm Water General Permit (MSGP) for storm water discharges associated with industrial activity, as defined by 40 CFR Part 122.26(b)(14), which can be found at <http://www.epa.gov/fedrgstr/> in the Federal Register, dated October 30, 2000, on pages 64745 through 64880 (see <http://www.epa.gov/fedrgstr/EPAFR-CONTENTS/2000/October/Day-30/contents.htm>). The NOI form can be found on page 64873. For further information, please see the DES fact sheet entitled *Federal Storm Water Permits* at <http://www.des.state.nh.us/factsheets/wwt/web-8.htm>.
- ❖ Construction Federal General Storm Water Permit for storm water discharges from construction sites disturbing five or more acres of land (1 acre after March 10, 2003). The permit can be found at <http://www.epa.gov/fedrgstr/> in the Federal Register dated February 17, 1998 on pages 7857 through 8014 (see <http://www.epa.gov/fedrgstr/EPAFR-CONTENTS/1998/February/Day-17/>). NOI requirements and the *Notice of Intent (NOI) for Storm Water Discharges Associated with Industrial Activity under a NPDES General Permit* form can be found on page 8010. For further information, please see the DES fact sheet entitled *Federal Storm Water Permits* at <http://www.des.state.nh.us/factsheets/wwt/web-8.htm>.
- ❖ Municipal Separate General Storm Sewer System ("MS4") Permits will be required for non-private owners of separate storm sewer systems located in urbanized areas beginning March 10, 2003. Call (603) 271-2984 for more information. For further information, please see the DES fact sheet entitled *Federal Storm Water Permits* at <http://www.des.state.nh.us/factsheets/wwt/web-8.htm>.

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If there are questions regarding this page or any other section of the Guidebook, please contact Tim Drew, Administrator, Public Information and Permitting Unit, at [tdrew@des.state.nh.us](mailto:tdrew@des.state.nh.us), or at (603) 271-3306.



## Wastewater Treatment Facility Operator Certificate

**Introduction:** RSA 485-A:5-a ("Water Pollution and Waste Disposal/Operator Certification Required", <http://gencourt.state.nh.us/rsa/html/L/485-A/485-A-5-a.htm>) requires all wastewater treatment plants in New Hampshire to be operated only by individuals who have been certified by DES. The DES Certification Program is designed to ensure that operators have accumulated the appropriate skills and training to carry out their duties and effectively treat the wastewater that is received at the treatment plant they operate (see <http://www.des.state.nh.us/factsheets/wwt/web-2.htm>). There are four levels (or grades) of proficiency starting with Grade I (Operator-in-Training) and continuing through Grade IV. Wastewater treatment facility operators operate mechanical equipment and maintain pumps, pipes, valves, and processing equipment to move the wastewater through collection systems and various treatment processes. They also operate chemical feeding devices, perform laboratory analyses, and maintain records of their work. Operators must be familiar with electricity, mechanics, chemistry, microbiology, and hydraulics. To ensure that operators possess the requisite skills, DES offers an operator-training program with courses in the spring and fall of each year at its training facility on the grounds of the Winnepesaukee River Basin wastewater treatment facility in Franklin, New Hampshire (see <http://www.des.state.nh.us/wwt/training.htm>). These courses help operators prepare for operator certification examinations. Registration for courses is on a first come/first served basis. Certification examinations are held annually in June and December, and applications to take the examination must be submitted to DES at least 45 days prior to the examination date (see <http://www.des.state.nh.us/wwt/examnotc.htm>). If a candidate has been certified by another state, application may be made for certification based on reciprocity pursuant to NH CODE ADMIN. RULES Env-Ws 901.07(h)-(j) (see <http://www.des.state.nh.us/rules/env900.pdf>). DES provides a summary of the Certification Committee rules, including education and experience requirements, at <http://www.des.state.nh.us/wwt/certcomm.pdf>.

**Number of certificates issued or renewed annually:** 250

**Fees:** \$30 per day for courses, \$50 for the examination, and \$50 for certificate renewal

**Estimated processing time after examination is deemed passed:** 1-2 months, depending upon grade level of the exam

**Certificate duration:** 2 years, subject to renewal

**Certificate transferability:** Not transferable

**Certificate modification:** Not applicable

**Certificate renewal:** Renewal is required every two years. For Grade II licenses or higher, 20 continuing education contact hours (2 CEUs) are required every two years to qualify for renewal. Continuing education credits may be lab course class work; hands-on workshops, computer courses, etc. (see <http://www.des.state.nh.us/wwt/renewapp.pdf>)

**State statutes:** RSA 485-A:5-a and 7-a through 7-d ("Water Pollution and Waste Disposal/Operator Certification Required/Application; Special Fund", <http://gencourt.state.nh.us/rsa/html/L/485-A/485-A-5-a.htm>, <http://gencourt.state.nh.us/rsa/html/L/485-A/485-A-7-a.htm>, <http://gencourt.state.nh.us/rsa/html/L/485-A/485-A-7-b.htm>, <http://gencourt.state.nh.us/rsa/html/L/485-A/485-A-7-c.htm>, <http://gencourt.state.nh.us/rsa/html/L/485-A/485-A-7-d.htm>) and RSA 486:9 ("Aid to Municipalities for Water Pollution Control/Operator Certification", <http://gencourt.state.nh.us/rsa/html/L/486/486-9.htm>)

**N. H. Code of Administrative Rules:** Env-Ws 901 (“Certification of Wastewater Treatment Plant Operators”, <http://www.des.state.nh.us/rules/env900.pdf>)

**Appeals body:** Operator Certification Committee, then the Water Council at RSA 21-O:7 (“Department of Environmental Services/Water Council”, <http://gencourt.state.nh.us/ras/html/l/21-O/21-O-7.htm>; see also <http://www.des.state.nh.us/rules/env-wc200.pdf> and [www.des.state.nh.us/councils/#1](http://www.des.state.nh.us/councils/#1))

**Additional information:** To register for a course or examination, call the DES Wastewater Engineering Bureau, Operations Section, (603) 271-2586 or (603) 271-3503.  
N. H. DES, Public Information Center, (603) 271-2975 or (603) 271-8876

# Wastewater Treatment Facility Operator Certificate – Work Sheet

## Key Qualifier Questions:

1. Do you work or want to work as a wastewater treatment plant operator or are you responsible for management of a treatment plant or the backup operator “in responsible charge”?
  - a. If yes, continue to Question #2 below.
  - b. If no, you do not need to obtain this certification.
2. Do you currently hold a Wastewater Treatment Facility Operator certification?
  - a. If no, you should contact DES to register for the Grade I, Operator-in-Training (“OIT”) examination. (Note: If you meet the qualifications for a higher grade license, you may apply for that license without first obtaining the Grade I/OIT license.)
  - b. If yes, you may want to try for a higher grade of certification. The grades, required education and experience levels are as follows:

Grade	Education (years)	Experience (years)
Grade I-OIT	12 (High School)	0
Grade I	12 (High School)	1
Grade II-OIT or II-OIT	12 (High School & 13 Wastewater school)	1 0
Grade II	12 (High School)	3
Grade III-OIT	14 (High School & 2 years of relevant education)	2
Grade III	14 (High School & 2 years of relevant education)	4
Grade IV-OIT	14 (High School & 2 years of relevant education)	4
Grade IV	14 (High School & 2 years of relevant education)	6

## What must you do to apply?

- Obtain a copy of the *Application for Certification – Wastewater Treatment Operator* from the DES Wastewater Engineering Bureau’s Operations Section, DES Public Information Center, or online at <http://www.des.state.nh.us/www/certapp.pdf>.
- Provide the applicant’s name, address, daytime telephone number, and date of birth.
- For each current wastewater operator certification held by the applicant, identify the state(s) in which certification is held, grade(s) of the certificate(s), number(s) of certificate(s), date certificate(s) received, and state whether or not the certificate was achieved by examination.
- Specify whether the applicant is seeking a New Hampshire license based on reciprocity with another state.
- Indicate the level of certification sought (Grades I-IV).
- List and describe the applicant’s educational background including years of high school (or GED), years of post-high school education, and additional education to be applied toward this requirement, and provide proof of post-high school education through transcripts and/or certificates of course completion.
- (See <http://www.des.state.nh.us/www/certcomm.pdf> and <http://www.des.state.nh.us/www/ceusheet.pdf>).
- Specify whether or not the applicant is requesting any education and/or experience substitutions [see Env-Ws 901.04(c)(2) and (d)(6) at <http://www.des.state.nh.us/rules/env900.pdf>].

- The applicant must attest to the following statement on the application: ***I hereby certify the information given by me is true and complete to the best of my knowledge, not only for the issuance of the certificate, but also for the retention of the certificate. I further agree to abide by the provisions of Env-Ws 901.***
- Submit a check or money order for \$50 made payable to the “Treasurer, State of New Hampshire” and the application, transcripts, fee, and all other supporting materials to: Wastewater Operations Section, Water Division, New Hampshire Department of Environmental Services, 6 Hazen Drive, P. O. Box 95, Concord, NH 03302-0095. Telephone: (603) 271-2586; fax: (603) 271-4128; or online: <http://www.des.state.nh.us/ww/>

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If there are questions regarding this page or any other section of the Guidebook, please contact Tim Drew, Administrator, Public Information and Permitting Unit, at [tdrew@des.state.nh.us](mailto:tdrew@des.state.nh.us) or at (603) 271-3306.



## Pre-Qualification of Consulting Engineering Firms/Approval

**Introduction:** Consulting engineering firms that are interested in providing engineering services to a municipality for a water supply or wastewater treatment project where federal or state funding assistance will be used must be listed on DES's *Roster of Pre-Qualified Consulting Engineers* (see <http://www.des.state.nh.us/wwe/roster.htm>). The intent of the pre-qualification program is to ensure that consulting engineering firms that vie for municipal water or wastewater treatment works contracts that involve federal or state funding have the experience and capability to satisfactorily complete the projects. Consulting engineering firms can apply in one or more of the following four categories relative to their interest and/or experience. The categories are (see <http://www.des.state.nh.us/wwe/Preqapp.doc>):

- Category 1 – expertise in water supply engineering, including water treatment
- Category 2 – expertise in water pollution control engineering, including wastewater treatment
- Category 3 – expertise in water or wastewater piping systems, including pumping.
- Category 4 – expertise in all categories 1, 2, and 3 (above).

The Federal Water Pollution Control Act ("FWPCA"), enacted by the U. S. Congress in 1972 (see <http://www4.law.cornell.edu/uscode/33/ch26.html>), made it necessary for the State of New Hampshire to require engineering firms to meet certain experience and capability standards when participating in the federal/state construction grants program. This requirement has been carried over into the State Aid Grant and State Revolving Fund loan programs. Pre-qualification essentially eliminates the need, during the procurement process, for a municipality to issue a request for qualification ("RFQ") prior to issuing a request for proposals ("RFP"). To obtain a roster of Pre-Qualified Consulting Engineering Firms, please contact DES at (603) 271-2001 or check online at <http://www.des.state.nh.us/wwe/roster.htm>. To check on the status of these firms, call the New Hampshire Secretary of State, Corporate Division (see <http://webster.state.nh.us/sos/corporate/>) or the Joint Board of Licensure and Certification (see <http://www.state.nh.us/jtboard/pe.htm>).

**Average number of letters of approval issued annually:** Approximately 5 new and 60 renewals

**Fees:** \$200 initial application fee; \$50 annual renewal fee

**Estimated processing time after application is deemed "complete":** 20-30 days

**Letter of Approval duration:** One year, subject to renewal

**Letter of Approval transferability:** Pre-qualification is transferable only if the firm (as originally approved) changes its ownership or name, but in all other respects remains the same.

**Letter of Approval modification:** The pre-qualified consulting engineering firm can provide modifications by submitting an updated application form.

**Letter of Approval renewal:** The pre-qualified consulting engineering firm must renew annually in order to remain on the roster of Pre-qualified Consulting Engineering Firms.

**State statute:** RSA 485-A:4, XIII ("Water Pollution and Waste Disposal/Duties of Department", <http://gencourt.state.nh.us/rsa/html/L/485-A/485-A-4.htm>)

**N. H. Code of Administrative Rules:** Env-Ws 600 ("Selection of Consulting Engineering Firms", <http://www.des.state.nh.us/rules/env600.pdf>)

**Appeals body:** Water Council at RSA 21-O:7 ("Department of Environmental Services/Water Council", <http://gencourt.state.nh.us/rsa/html/I/21-O/21-O-7.htm>; see also <http://www.des.state.nh.us/rules/env-wc200.pdf> and <http://www.des.state.nh.us/councils/#1>)

**Additional information:**

N. H. DES, Wastewater Engineering Bureau, (603) 271-2001  
N. H. DES, Public Information Center, (603) 271-2975 or (603) 271-8876  
N. H. Secretary of State, Corporate Division, (603) 271-3244  
N. H. Joint Board of Licensure & Certification, (603) 271-2219

## Pre-Qualification of Consulting Engineering Firms/Approval – Work Sheet

**Key Qualifier Question:** *Do you represent a consulting engineering firm that is interested in providing engineering services for a New Hampshire municipality for a water supply or wastewater treatment project for which the municipality will be receiving federal or state funding assistance?*

### What must you do to apply?

- Obtain a copy of the *Application for Pre-Qualification* from the DES Wastewater Engineering Bureau, DES Public Information Center, or online at <http://www.des.state.nh.us/www/Pregapp.doc>.
- Complete, sign, and submit six copies of the application form.
- Complete, sign, and submit six copies of the *Engineers' Pre-Qualification Form* (see [http://www.des.state.nh.us/www/Pre\\_qual.doc](http://www.des.state.nh.us/www/Pre_qual.doc)).
- Submit one copy of a *Certificate of Existence* issued by the New Hampshire Secretary of State, Corporate Division, for in-state corporations (<http://webster.state.nh.us/sos/corporate/corpforms.htm>), or a *Certificate of Authorization* (<http://webster.state.nh.us/sos/corporate/corpform2.htm>) for “foreign” (out-of-state) corporations, as proof of “good standing” which permits the firm to transact business in New Hampshire. (Be sure to use the term “good standing” when requesting these documents from the Secretary of State’s Office at <http://webster.state.nh.us/sos/corporate/>)
- Submit one copy of the *Certificate of Authorization for the Practice of Professional Engineering* (see <http://www.state.nh.us/jtboard/engcorp.pdf> for the application form and RSA 310-A:20 (“Professional Engineers, Architects, Land Surveyors, Professional Geologists, and Natural Scientists/Engineering Certificates for Business Organizations”, <http://gencourt.state.nh.us/rsa/html/XXX/310-A/310-A-20.htm>), issued by the New Hampshire Joint Board of Licensure and Certification, permitting the firm to practice professional engineering in New Hampshire (see <http://www.state.nh.us/jtboard/pe.htm>).
- Submit one set of plans, specifications and/or reports related to a successfully completed project in the category for which the application is being made.
- The applicant must sign the statement on the application form stating: ***I hereby certify the information given by me is true and complete to the best of my knowledge. I further agree to abide by the provisions of Env-Ws 600, Selection of Consulting Engineering Firms.***
- Submit a check or money order for \$200 made payable to “Treasurer, State of New Hampshire”, along with the application and all supporting materials to: Wastewater Engineering Bureau, Water Division, New Hampshire Department of Environmental Services, 6 Hazen Drive, P. O. Box 95, Concord, NH 03302-0095. Telephone: (603) 271-2001; fax: (603) 271-4128; or online: <http://www.des.state.nh.us/www/>

### What must you do to renew?

- Complete, sign, and submit one copy of an updated *Engineers' Pre-Qualification Form* (see [http://www.des.state.nh.us/www/Pre\\_qual.doc](http://www.des.state.nh.us/www/Pre_qual.doc)).
- When specifically requested in the renewal notice issued by DES, submit one copy of a *Certificate of Existence* issued by the New Hampshire Secretary of State, Corporate Division, for in-state corporations (<http://webster.state.nh.us/sos/corporate/corpforms.htm>), or for “foreign” (out-of-state) corporations, a *Certificate of Authorization* (<http://webster.state.nh.us/sos/corporate/corpform2.htm>), as proof of “good standing”.
- When specifically requested in the renewal notice issued by DES, submit one copy of the *Certificate of Authorization for the Practice of Professional Engineering*, issued by the New Hampshire Joint Board of Licensure and Certification (see <http://www.state.nh.us/jtboard/engcorp.pdf> for RSA 310-A:20 and the application form) to reaffirm that the company is permitted to practice professional engineering in the state of New Hampshire.
- Enclose a check for \$50 for the renewal fee, made payable to “Treasurer, State of New Hampshire”.

- Note: To remain on the roster, pre-qualified consulting engineering firms must submit all items required for renewal by October 31 of each year. Any submittals received after October 31 will result in removal of the company's name from the roster and the requirement to complete the new application process to be reinstated.
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If there are any questions on this page or any other section of the Guidebook, please contact Tim Drew, Administrator, Public Information and Permitting Unit, at [tdrew@des.state.nh.us](mailto:tdrew@des.state.nh.us) or at (603) 271-3306.

## Sludge Quality Certification

**Introduction:** Sludge and sludge mixtures generated from municipal or industrial wastewater treatment facilities cannot be stockpiled, land applied, distributed for land application, sold, or given away in bulk without first being certified as acceptable for such uses in New Hampshire. This requirement applies to sludge generated from in-state sources as well as sludge brought into New Hampshire for final use or disposal. Sludge that cannot be certified must be disposed at a permitted landfill or incineration facility, permitted under RSA 149-M ("Solid Waste Management", <http://gencourt.state.nh.us/rsa/html/indexes/149-M.html>) and NH CODE ADMIN. RULES Env-Wm 100-300, 2100 *et seq.* ("Solid Waste Rules", <http://www.des.state.nh.us/hwrb/swrules.pdf>). Sludge characterized as "hazardous waste" under RSA 147-A ("Hazardous Waste Management", <http://gencourt.state.nh.us/rsa/html/indexes/147-A.html>) and NH CODE ADMIN. RULES Env-Wm 100-1000 ("Hazardous Waste Rules", <http://www.des.state.nh.us/hwrb/hwrules.pdf>), is not eligible to receive this certification. A Sludge Quality Certification is not required for sludge or biosolids that are produced at a facility where each constituent of the sludge already possesses such a certification or that is being disposed in a permitted landfill or incinerator. Any public or private treatment facility that generates sludge destined for beneficial reuse by land application, including short paper fiber from paper mills, must apply for this certification (see <http://www.des.state.nh.us/factsheets/wwt/web-12.htm>). Sludge is certified to determine its quality and variability prior to recycling, and to establish its compliance with Env-Ws 807 (see <http://www.des.state.nh.us/rules/envws800.pdf>) and with federal requirements listed in 40 CFR Part 503 (see <http://www.epa.gov/docs/epacfr40/chapt-I.info/subch-O.htm>). Sludge Quality Certification assures that the material is safe to be placed on ground surfaces for beneficial reuse, a recycling technique known as "land application". Material comprised of municipal sludge is referred to as "biosolids" once it has been certified. Short paper fiber (a residual from mills that manufacture paper) may also be certified if it meets DES requirements. Land application of biosolids and short paper fiber takes advantage of the nutrients and organic matter in the material to reclaim land, grow crops, and enhance forestry. The analysis that must be done to obtain a Sludge Quality Certification includes tests for 67 volatile organic compounds, 61 semi-volatile compounds, 14 metals, 17 pesticides, 7 polychlorinated biphenyls, dioxins, total cyanides, 6 nutrients, pH and percent solids. Enteric virus tests are performed on Class B biosolids to be used for land reclamation. Representative sampling protocols/frequencies are defined, and DES verifies the results through an independent laboratory.

**Average number of permits issued annually:** 4-5

**Fee:** \$1,000 per application (In-state municipal wastewater treatment facilities are exempt from this fee.)

**Estimated processing time after application is deemed "complete":** 2-4 weeks

**Certification duration:** Five years, subject to renewal

**Certificate transferability:** Not transferable

**Certificate modification:** Not applicable

**Certificate renewal:** To ensure that certification does not lapse, a new application should be filed at least 120 days prior to the expiration of the existing certificate.

**State statute:** RSA 485-A:4, XVI-b ("Water Pollution and Waste Disposal/Duties of Department", <http://gencourt.state.nh.us/rsa/html/L/485-A/485-A-4.htm>)

**Federal law:** 33 U.S.C. 1251 *et seq.* (1977) ("Clean Water Act", <http://www4.law.cornell.edu/uscode/33/ch26.html>)

**N. H. Code of Administrative Rules:** Env-Ws 800 (“Sludge Management”, <http://www.des.state.nh.us/rules/envws800.pdf>)

**U. S. Code of Federal Regulations:** 40 CFR Part 122; 40 CFR Part 257; 40 CFR Part 503 (“Environmental Protection Agency”, <http://www.epa.gov/epacfr40/chapt-I.info/chi-toc.htm>)

**Appeals body:** Water Council at RSA 21-0:7 (“Department of Environmental Services/Water Council”, <http://gencourt.state.nh.us/rsa/html/21-O/21-O-7.htm>; see also <http://www.des.state.nh.us/rules/env-wc200.pdf> and <http://www.des.state.nh.us/councils/#1>)

**Additional information:**

- N. H. DES, Wastewater Engineering Bureau, (603) 271-3908
- N. H. DES, Hazardous Waste Compliance Section, (603) 271-2942
- N. H. DES, Solid Waste Management Bureau, (603) 271-2925
- N. H. DES, Public Information Center, (603) 271-2975 or (603) 271-8876

## Sludge Quality Certification – Work Sheet

**Key Qualifier Question:** *Will the municipal or industrial wastewater sludge generated at your facility be stockpiled, land applied, distributed for land application, sold, or given away in bulk in the state of New Hampshire?*

**What must you do to apply?** (See <http://www.des.state.nh.us/factsheets/wwt/web-12.htm>)

- Obtain a copy of the *Sludge Quality Certification Application* from the DES Water Division, Sludge and Septage Section, DES Public Information Center, or access it online at [http://www.des.state.nh.us/www/septslud/sludgecert\\_app.pdf](http://www.des.state.nh.us/www/septslud/sludgecert_app.pdf).
- Provide the name and address of the wastewater treatment facility or other facility that has generated or will generate the sludge.
- List the name, title, and telephone number of the operator of the facility that will be treating or stockpiling the sludge.
- If the sludge will be generated by a publicly-owned wastewater treatment facility, provide a list and brief description of all industrial permittees and the permittees' limits, including a table containing the estimated quantity, physical, and chemical characteristics of each discharge and the specific concentration limits in the permit for parameters reasonably expected to be present. (This is the same information that is required to be maintained by the facility for industrial discharges pursuant to NH CODE ADMIN. RULE Env-Ws 405.04(c) (see <http://www.des.state.nh.us/rules/ws400-405.pdf>)
- For sludge generated by an industrial wastewater treatment facility, provide the name and quantity of all chemicals being discharged to the facility. For those facilities holding a National Pollutant Discharge Elimination System ("NPDES") Permit, submit a copy of the most recent NPDES permit application with a statement that the information is current.
- Provide the quantity of sludge, in wet tons, generated monthly by the treatment facility for the past two years.
- If the sludge is generated outside New Hampshire, provide certification that the sludge meets the chemical standards for land application in the state of origin.
- If the sludge contains human waste, provide a description of the process to achieve Class A or Class B pathogen reduction requirements and vector attraction reduction requirements, including the applicable 40 CFR Part 503 citations at (see <http://www.epa.gov/docs/epacfr40/chapt-I.info/subch-O.htm> and [http://www.access.gpo.gov/nara/cfr/cfrhtml\\_00/Title\\_40/40cfr122\\_00.html](http://www.access.gpo.gov/nara/cfr/cfrhtml_00/Title_40/40cfr122_00.html)).
- Prepare a sludge quality report which includes the following:
  - A description of the treatment facility and sludge treatment process
  - A chronological summary of analytical data from the previous three years (if available) for each detected chemical
  - Data presented in tabular form and categorically for all metals, volatile organic compounds, semi-volatile organic compounds, dioxins, and pesticides/herbicides
  - Results of testing required by Env-Ws 807.05(d), including laboratory reports, presented categorically as with the data summary (above)
- Submit a check or money order for \$1,000 (Municipalities are exempt from this fee.) made payable to "Treasurer, State of New Hampshire", along with two copies of the application and all supporting materials to: Sludge and Septage Section, Wastewater Engineering Bureau, Water Division, New Hampshire Department of Environmental Services, 6 Hazen Drive, P. O. Box 95, Concord, NH 03302-0095. Telephone: (603) 271-3908; fax: (603) 271-4128; or online: <http://www.des.state.nh.us/www/septslud.htm>.

**What types of projects require this certification?**

- ❖ Sludge from a municipal wastewater treatment facility destined to be distributed for land application

- ❖ Mixed sludge from an industrial wastewater treatment facility destined to be stockpiled prior to land application
- ❖ Sludge to be prepared for sale or provided free of charge in bulk

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If there are questions regarding this page or any other section of the Guidebook, please contact Tim Drew, Administrator, Public Information and Permitting Unit, at [tdrew@des.state.nh.us](mailto:tdrew@des.state.nh.us) or at (603) 271-3306.



## Sludge Hauler Permit

**Introduction:** The term “sludge” is used to describe the solid and semisolid material produced by water and wastewater treatment processes; it includes industrial sludge and sludge mixtures, but does not include domestic septage or sludge disposed at solid waste facilities. DES regulates the processing, transportation, and disposal/reuse of sludge and biosolids pursuant to RSA 485-A:4, XVI-b (“Water Pollution and Waste Disposal/Duties of Department”, <http://gencourt.state.nh.us/rsa/html/L/485-A/485-A-4.htm>) and NH CODE ADMIN. RULES Env-Ws 800 (see <http://www.des.state.nh.us/rules/envws800.pdf>) to ensure that these materials are managed in an environmentally sound manner. A sludge hauler is defined in NH CODE ADMIN. RULES Env-Ws 802.16 as *any person engaged in the removal or transportation of sludge*, where “person” includes political subdivisions, business entities, and individuals. A Sludge Hauler Permit is required for each vehicle that will be used to transport, over public roads, any sludge generated in or destined for New Hampshire which does not meet Class A criteria as specified in Env-Ws 802.06 (see <http://www.des.state.nh.us/factsheets/wwt/web-10.htm>). This provides DES with a mechanism for “cradle-to-grave” tracking to regulate the movement and final disposition of sludge for the protection of public health and the environment. A Sludge Hauler Permit is not required for the interstate hauling of sludge that does not originate from, nor is disposed in New Hampshire.

**Average number of permits issued annually:** 15

**Fees:** \$100 per transport vehicle (Municipalities that transport their own sludge are exempt from this fee.)

**Estimated processing time after application is deemed “complete”:** 1 week

**Permit duration:** 2 years. Sludge Hauler Permits expire on January 31 of the odd-numbered year following the date of issuance.

**Permit transferability:** Sludge Hauler Permits are not transferable unless approved by DES.

**Permit modification:** Not applicable

**Permit renewal:** A new application should be filed at least 30 days prior to the expiration date of the existing Sludge Hauler Permit. DES will send renewal forms to all permitted haulers.

**State statute:** RSA 485-A:4, XVI-b (“Water Pollution and Waste Disposal/Duties of Department”, <http://gencourt.state.nh.us/rsa/html/L/485-A/485-A-4.htm>)

**Federal law:** 33 U. S. C. 1251 et seq. (1977) (“Clean Water Act”, <http://www4.law.cornell.edu/uscode/33/ch26.html>)

**N. H. Code of Administrative Rules:** Env-Ws 800 (“Sludge Management”, <http://www.des.state.nh.us/rules/envws800.pdf>)

**U. S. Code of Federal Regulations:** (Not applicable)

**Appeals body:** Water Council at RSA 21-0:7 (“Department of Environmental Services/Water Council”, <http://gencourt.state.nh.us/rsa/html/L/21-O/21-O-7.htm>; see also <http://www.des.state.nh.us/rules/env-wc200.pdf> and <http://www.des.state.nh.us/councils/#1>)

**Additional information:** N. H. DES, Wastewater Engineering Bureau, (603) 271-3908  
N. H. DES, Public Information Center, (603) 271-2975 or (603) 271-8876



## Sludge Hauler Permit – Work Sheet

**Key Qualifier Question:** *Do you plan to transport sludge that does not meet the criteria of “Class A Sludge” over public roads?*

### What must you do to apply?

- Obtain a copy of the *Sludge Hauler Application* form from the DES Water Division, Sludge and Septage Section, DES Public Information Center, or access it online at [http://www.des.state.nh.us/www/septslud/sludgehauler\\_app.pdf](http://www.des.state.nh.us/www/septslud/sludgehauler_app.pdf).
- Provide the name, address, and home telephone number of the applicant and owner, if an individual.
- Provide the name, address, and telephone number of the applicant’s business and contact person.
- Provide any telephone numbers to be used in case of an emergency.
- Provide the vehicle identification number and license plate number for each vehicle that will be used to transport the containers carrying sludge.
- Provide the name, principal place of business, and telephone number of the sludge hauler or sludge transporting company that will appear on both sides of the vehicle that will be used to transport the container(s) carrying the sludge.
- Provide evidence as to whether the applicant or owner has been convicted of a misdemeanor under any statute administered by DES with the five years prior to the date of this application, or a felony in any state or federal court during the ten years prior to the date of this application.
- Provide written certification that upon issuance of the permit, the applicant will assume complete responsibility for ensuring that all persons who will be transporting sludge with the applicant’s vehicle(s) are familiar with the requirements of NH CODE ADMIN. RULES Env-Ws 800 (“Sludge Management”, <http://www.des.state.nh.us/rules/envws800.pdf>).
- Include a written statement signed by the applicant stating that all vehicles and container(s) to be used for transporting sludge have met all applicable federal and state motor vehicle requirements for sludge transportation.
- Prepare a check or money order in the amount of \$100 for each transport vehicle made payable to “Treasurer, State of New Hampshire” and submit the application and all supporting materials to: Sludge and Septage Section, Wastewater Engineering Bureau, Water Division, New Hampshire Department of Environmental Services, 6 Hazen Drive, P. O. Box 95, Concord, NH 03302-0095. Telephone: (603) 271-3908; fax: (603) 271-4128; or online: <http://www.des.state.nh.us/www/septslud.htm> **Note:** Municipalities are exempt from the application fees but must still obtain the permit.

### What types of projects require this permit?

- ❖ Commercial removal and transport over public roads of sludge from a wastewater treatment facility
- ❖ Commercial removal and transport over public roads of mixtures including human waste derived sludge
- ❖ Commercial removal and transport over public roads of water treatment facility sludge
- ❖ A municipal vehicle that removes and transports that community’s sludge from its storage lagoons to a sludge management facility for composting, processing, treatment, and/or final disposal

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If there are questions regarding this page or any other section of the Guidebook, please contact Tim Drew, Administrator, Public Information and Permitting Unit, at [tdrew@des.state.nh.us](mailto:tdrew@des.state.nh.us) or at (603) 271-3306.



## Sludge Site Permit

**Introduction:** The term “sludge” is used to describe the solid and semisolid material produced by water and wastewater treatment processes. It includes industrial sludge and sludge mixtures, but does not include domestic septage or sludge disposed at solid waste facilities. The term “biosolids” means any sludge derived from a municipal wastewater treatment facility that meets DES standards for beneficial reuse. DES regulates the processing, transportation, and disposal/reuse of sludge and biosolids pursuant to RSA 485-A:4, XVI-b (“Water Pollution and Waste Disposal/Duties of Department”, <http://gencourt.state.nh.us/rsa/html/L/485-A/485-A-4.htm>) and NH CODE ADMIN. RULES Env-Ws 800 (“Sludge Management Rules”, <http://www.des.state.nh.us/rules/envws800.pdf>) to ensure that these materials are beneficially used or disposed in an environmentally sound manner. DES authorizes the recycling of these materials through land application or composting for incorporation into topsoils at permitted sites, thus making use of their nutrient value and soil conditioning characteristics. These practices also preserve valuable solid waste landfill capacity and extend useful design life. Land application of sludge that has been certified in accordance with Env-Ws 807, represents an acceptable final beneficial reuse option, as long as all public health and environmental concerns are met. It recycles beneficial constituents (nutrients and organic matter) into the soil and provides added water retention capacity needed for plant growth. Prior to using any site for land application or stockpiling (for less than eight months), a Sludge Site Permit must be obtained. To obtain this permit, the applicant must prepare and submit a detailed site plan, a management plan, a groundwater monitoring plan (for reclamation sites), and detailed information on soil types and analyses. The applicant must notify abutters, the host community, and DES when filing an application. If issued, the Sludge Site Permit will contain testing requirements and minimum operating standards (including setbacks from homes, wells, water bodies, and water table, plus slope restrictions). The permit holder also must publish a public notice describing his/her intent to land-apply biosolids each year. An annual report must be filed with DES that documents the quantities of biosolids applied and demonstrates compliance with DES administrative rules.

**Average number of permits issued annually:** 5

**Fees:** \$100 for sites with less than 5 acres, \$150 for sites with 5-10 acres, and \$300 for sites greater than 10 acres (All municipalities are exempt from these fees.)

**Estimated processing time after application is deemed “complete”:** 2-3 months

**Permit duration:** Five years, subject to renewal

**Permit transferability:** Not transferable unless prior approval has been obtained from DES

**Permit modification:** Prior to implementing any changes, permit holders must notify DES in writing in accordance with Env-Ws 804.04 concerning proposed changes to a Sludge Site Permit and file a revised site plan and management plan highlighting the changes, coupled with an explanation justifying the need for the modifications. Include a list of abutters who were not notified at the time of the original application. (See [http://www.des.state.nh.us/www/septslud/sludgemod\\_app.pdf](http://www.des.state.nh.us/www/septslud/sludgemod_app.pdf))

**Permit renewal:** An application must be submitted to DES no later than 120 days prior to the expiration date of the existing permit. The applicant must submit information in Env-Ws 804.08(c) which is similar to that required for a permit modification.

**State statute:** RSA 485-A:4, XVI-b (“Water Pollution and Waste Disposal/Duties of Department”, <http://gencourt.state.nh.us/rsa/html/L/485-A/485-A-4.htm>)

**Federal law:** 33 U. S. C. 1251 *et seq.* (1977) (“Clean Water Act”, <http://www4.law.cornell.edu/uscode/33/ch26.html>)

**N. H. Code of Administrative Rules:** Env-Ws 800 (“Sludge Management”, <http://www.des.state.nh.us/rules/envws800.pdf>)

**U. S. Code of Federal Regulations:** 40 CFR Part 122; 40 CFR Part 257; 40 CFR Part 503 (“Environmental Protection Agency”, <http://www.epa.gov/docs/epacfr40/chapt-I.info/subch-O.htm>)

**Appeals body:** Water Council at RSA 21-0:7 (“Department of Environmental Services Act/Water Council”, <http://gencourt.state.nh.us/rsa/html/l/21-O/21-O-7.htm>; see also <http://www.des.state.nh.us/rules/env-wc200.pdf> and <http://www.des.state.nh.us/councils/#1>)

**Additional information:** N. H. DES, Wastewater Engineering Bureau, (603) 271-7888  
N. H. DES, Public Information Center, (603) 271-2975 or (603) 271-8876

## Sludge Site Permit – Work Sheet

**Key Qualifier Question:** Do you wish to apply certified biosolids to the land surface to provide nutrients, organic matter, and water to the soils for reclamation, stabilization, or other beneficial purposes?

### What must you do to apply?

- Obtain a copy of the *Sludge Site Permit Application* from the DES Wastewater Engineering Bureau, DES Public Information Center, or access it online at [http://www.des.state.nh.us/www/septslud/sludgesite\\_app.pdf](http://www.des.state.nh.us/www/septslud/sludgesite_app.pdf).
- Provide the name, place of business, and telephone number of the applicant's business, or home telephone number (if an individual applicant), including a 24-hour emergency contact.
- Provide the location of the proposed facility, including street address, tax map and lot number, current deed reference, as well as the facility owner's name and the current (or proposed) operators.
- Describe the types of activities proposed for the site (e.g., agricultural, forest, land reclamation, stockpiling, etc.).
- Provide a description of how the site has been used, including agricultural operations and crops grown on each field (if applicable), for the five years prior to submission of the application.
- Provide a written statement that indicates whether the applicant has been convicted of a misdemeanor under any statute administered by DES within five years prior to the date of this application, or of a felony in any state or federal court during the ten years prior to this date of application.
- Prepare a site plan in accordance with NH CODE ADMIN. RULES Env-Ws 806.06 ("Sludge Management Rules", <http://www.des.state.nh.us/rules/envws800.pdf>) that has been reduced to a size of 8½" by 11" or 11" by 14", a management plan in accordance with Env-Ws 806.07 and, if land reclamation is proposed, prepare a groundwater monitoring plan as required by Env-Ws 809.02.
- Prepare a signed statement certifying that:
  - Notification concerning the proposal has been provided to DES, abutters, the host community, and landowners within 500 feet of the site where land application will occur
  - The site operator has been instructed on the requirements of Env-Ws 800 prior to working there
  - A copy of the application has been provided to the host community and it is accurate
- Include a copy of the U. S. Department of Agriculture's Natural Resource Conservation Service ("NRCS") county soils map, or portion thereof, showing the areas of proposed activity clearly delineated, including a description of each type of soil found at the site (see [http://www.nh.nrcs.usda.gov/Soil\\_Data/](http://www.nh.nrcs.usda.gov/Soil_Data/)).
- Submit a description of soil profile characteristics for each soil test pit or auger boring, including a description of the soil profile characteristics, depth to seasonal high water table, and depth to bedrock/other restrictive layer.
- Provide a U. S. Geological Survey map (largest scale available) depicting site boundaries with its latitude/longitude specified (see <http://www.topozone.com>).
- Submit the results of "background" soil analyses conducted in accordance with Env-Ws 806.10 including such parameters as heavy metals, soil acidity pH, buffer pH, texture, phosphorus, and organic matter.
- Provide written verification from the New Hampshire Department of Resources and Economic Development's Natural Heritage Inventory Section that indicates whether any threatened or endangered species exist on the site (see [http://www.nhdf.org/organization/div\\_nhnhi.htm](http://www.nhdf.org/organization/div_nhnhi.htm)).
- For land reclamation and forest application sites, submit a site-specific map or survey according to the Society of Soil Scientists of Northern New England's ***Site-Specific Soil Mapping Standards for New Hampshire and Vermont*** (see next "bullet").
- (See [http://www.nh.nrcs.usda.gov/Soil\\_Data/Publications/NH%20VT%20Soil%20Mapping%20Standards.pdf](http://www.nh.nrcs.usda.gov/Soil_Data/Publications/NH%20VT%20Soil%20Mapping%20Standards.pdf))
- Prepare a list of all other state permits required for the site, and provide proof of application and status.
- Identify a local public repository where all information concerning the application can be reviewed.

- If the applicant is not the owner, submit a written statement that authorizes the applicant to engage in the proposed activities at the specified site and further authorizes DES to enter for purposes of site inspections and investigations.
- If the applicant is not the generator of the sludge(s), include a written statement signed by the generator certifying that the generator is ultimately responsible for the proper disposal of sludges at the site.
- Submit a check or money order for \$300 (if site exceeds 10 acres), \$150 (if site is 5-10 acres) or \$100 (if site is 5 acres or less), made payable to "Treasurer, State of New Hampshire", along with two copies of the application and all supporting information to: Wastewater Engineering Bureau, New Hampshire Department of Environmental Services, 6 Hazen Drive, P. O. Box 95, Concord, NH 03302-0095. Telephone: (603) 271-7888; fax: (603) 271-4128; or online: <http://www.des.state.nh.us/www/septslud.htm> Sites owned and operated by New Hampshire municipalities are exempt from the fees but must still obtain the permit.

### **What types of projects require this permit?**

- ❖ The development of a land application site for agricultural purposes
- ❖ The development of a land application site for forestry improvement activities
- ❖ The development of a land application site for gravel pit reclamation
- ❖ The development of a land application site for the stockpiling of sludge

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## Sludge Facility Permit

**Introduction:** The term “sludge” is used to describe the solid and semisolid material produced by water and wastewater treatment processes. As defined in RSA 485-A:2, XI-a (“Water Pollution and Waste Disposal/Definitions”, <http://gencourt.state.nh.us/rsa/html/L/485-A/485-A-2.htm>), it includes industrial sludge and sludge mixtures, but does not include domestic septage or sludge disposed at solid waste facilities. The term “biosolids” is defined in RSA 485-A:2, XXII as *any sludge derived from a municipal wastewater treatment facility that meets the standards for beneficial reuse specified by DES*, where the standards are specified in NH CODE ADMIN. RULES Env-Ws 807. DES regulates the processing, transportation, and disposal/reuse of sludge and biosolids pursuant to RSA 485-A:4, XVI-b (see <http://gencourt.state.nh.us/rsa/html/L/485-A/485-A-4.htm>) and NH CODE ADMIN. RULES Env-Ws 800 (see <http://www.des.state.nh.us/rules/envws800.pdf>), to ensure that these materials are beneficially used or disposed in an environmentally sound manner. Any facility that is designed to manage, process, store, treat, or dispose of sludge (including sludge storage facilities and transfer stations where sludge is collected before transport to another site or facility), other than at a permitted sludge land application site or a permitted solid waste facility under RSA 149-M (“Solid Waste Management”, <http://gencourt.state.nh.us/rsa/html/indexes/149-M.html>), must obtain a Sludge Facility Permit before beginning operations. An applicant must notify abutters, the host community, and DES concerning the plans for such a facility, and must provide a facility plan, a management plan that may include hydrogeologic studies, a groundwater monitoring plan (if required), and an odor control plan. If the application is approved, permit conditions will be included as needed to minimize impacts from facility operations on abutters and the surrounding community, and to protect public health and the environment.

**Average number of permits issued annually:** 5

**Fees:** Sludge composting facilities require a \$500 application fee, while all other types of sludge management facilities require a \$1,000 fee. (All municipalities are exempt from these fees.) The fee differential was established to encourage the development of composting operations, where possible.

**Estimated processing time after application is deemed “complete”:** 3-4 months

**Permit duration:** Five years, subject to renewal

**Permit transferability:** Not transferable unless prior approval is obtained from DES

**Permit modification:** Prior to implementing any changes, the permit holder must notify DES in writing in accordance with Env-Ws 804.08 concerning proposed changes to a Sludge Facility Permit and must file a revised site plan and management plan highlighting the changes, coupled with an explanation justifying the need for the modifications. Include a list of abutters who were not notified at the time of the original application (see [http://www.des.state.nh.us/www/septslud/sludgemod\\_app.pdf](http://www.des.state.nh.us/www/septslud/sludgemod_app.pdf))

**Permit renewal:** An application for renewal must be submitted to DES no later than 180 days prior to the expiration date of the existing permit. The applicant must submit the information specified in Env-Ws 804.08(c), which is similar to that required for a permit modification.

**State statute:** RSA 485-A:4, XVI-b (“Water Pollution and Waste Disposal/Duties of the Department”, <http://gencourt.state.nh.us/rsa/html/L/485-A/485-A-4.htm>)

**Federal law:** 33 U. S. C. 1251 et seq. (1977) (“Clean Water Act”, <http://www4.law.cornell.edu/uscode/33/ch26.html>)

**N. H. Code of Administrative Rules:** Env-Ws 800 (“Sludge Management”, <http://www.des.state.nh.us/rules/envws800.pdf>)

**U. S. Code of Federal Regulations:** 40 CFR Part 122; 40 CFR Part 257; 40 CFR Part 503 (“Environmental Protection Agency”, <http://www.epa.gov/epacfr40/chapt-I.info/chi-toc.htm>)

**Appeals body:** Water Council at RSA 21-0:7 (“Department of Environmental Services/Water Council”, <http://gencourt.state.nh.us/rsa/html/l/21-O/21-O-7.htm>; see also <http://www.des.state.nh.us/rules/env-wc200.pdf> and <http://www.des.state.nh.us/councils/#1>)

**Additional information:** N. H. DES, Wastewater Engineering Bureau, (603) 271-7888  
N. H. DES, Public Information Center, (603) 271-2975 or (603) 271-8876

## Sludge Facility Permit – Work Sheet

**Key Qualifier Questions:** *Do you plan to design and construct a facility where sludge will be mixed, treated, processed, or disposed (but not land applied), composted for biosolids production, stored or stockpiled for more than eight months? Do you plan to design and construct a sludge lagoon or monofill, a sludge transfer station, or a mixing site to prepare sludge for offsite use?*

### What must you do to apply?

- Obtain a copy of the *Sludge Facility Permit Application* from the DES Wastewater Engineering Bureau, DES Public Information Center, or access it online at [http://www.des.state.nh.us/wwe/septslud/sludgefacility\\_app.pdf](http://www.des.state.nh.us/wwe/septslud/sludgefacility_app.pdf)
- Provide the name, place of business, and telephone number of the applicant's business, or home telephone number (if an individual applicant), including a 24-hour emergency contact.
- Provide the location of the proposed facility, including street address, tax map and lot number, current deed reference, as well as the facility owner's name and the current (or proposed) operator.
- Describe the type of sludge management activities proposed for the site (e.g., composting, storing, treating, etc.).
- Provide an estimate of the facility's intended capacity and its projected design life.
- Provide a description of how the land where the facility is proposed was used for the five years prior to the date of application.
- Indicate intended use of the sludge generated (e.g., land application) and whether sludge quality certification will be sought (only required if sludge or biosolids are destined for land application).
- Submit the following documents, prepared and stamped by a registered professional engineer licensed to practice in the state of New Hampshire (see <http://www.state.nh.us/jtboard/pe.htm>), pursuant to NH CODE ADMIN. RULES Env-Ws 800 (<http://www.des.state.nh.us/rules/envws800.pdf>):
  - Facility plan and construction specifications in accordance with Env-Ws 808.06.
  - Management plan in accordance with Env-Ws 808.07.
  - Closure plan in accordance with Env-Ws 808.09.
  - Groundwater monitoring plan (if required) in accordance with Env-Ws 809.
- Provide a signed statement certifying that:
  - Notice concerning the proposal has been provided to DES and all abutters, the host community, and all landowners located within 500 feet of the facility.
  - The operator of the facility has been (or will be) instructed on the requirements of Env-Ws 800 before operating the facility.
  - A copy of the facility application has been provided to the host community and the information is accurate.
- Include a copy of the U. S. Department of Agriculture's Natural Resource Conservation Service county soils map, or portion thereof, showing the areas of proposed activity clearly delineated, including a description of each type of soil found at the site (see [http://www.nh.nrcs.usda.gov/Soil\\_Data/](http://www.nh.nrcs.usda.gov/Soil_Data/)).
- Submit a description of the soil profile characteristics for each soil test pit or auger boring, including a description of the soil profile characteristics, depth to seasonal high water table, and depth to bedrock/other restrictive layer.
- Provide a U. S. Geological Survey map (largest scale available) depicting facility boundaries with its latitude/longitude specified (see <http://www.topozone.com>).
- Provide written verification from the New Hampshire Department of Resources and Economic Development's Natural Heritage Inventory Section that indicates whether any threatened or endangered species exist on the site (see [http://www.nhdf.org/organization/div\\_nhnhi.htm](http://www.nhdf.org/organization/div_nhnhi.htm)).
- For sludge monofills, provide financial assurance pursuant to NH CODE ADMIN. RULES Env-Wm 3100 ("Solid Waste Rules/Financial Assurance", <http://www.des.state.nh.us/rules/swrules.pdf>).
- Prepare a list of all other state permits required for the site, and provide proof of application and status.

- Identify a local public repository where all information concerning the application can be reviewed.
- Provide a written statement that indicates whether or not the applicant has been convicted of a misdemeanor under any statute administered by DES within five years prior to the date of this application, or of a felony in any state or federal court during the ten years prior to this date of application.
- If the applicant is not the owner, submit a written statement that authorizes the applicant to construct and operate the proposed sludge facility on the specified site and further authorizes DES to enter for site inspections and investigations.
- If the applicant is not the generator of the sludge(s), include a written statement signed by the generator certifying that the generator is ultimately responsible for the proper disposal of sludge at the site.
- Submit a check or money order for \$500 if a compost facility or \$1,000 for all other types (Municipal facilities are exempt from these fees), made payable to “Treasurer, State of New Hampshire”, with two copies of all information to: Sludge and Septage Management Section, Wastewater Engineering Bureau, New Hampshire Department of Environmental Services, 6 Hazen Drive, P. O. Box 95, Concord, NH 03302-0095. Telephone: (603) 271-7888; fax: (603) 271-4128; or online: <http://www.des.state.nh.us/www/septslud.htm>

### **What types of projects require this permit?**

- ❖ The development of a sludge or biosolids storage facility, such as a stockpile area, where materials will be stored for more than eight months
- ❖ The development of a compost facility for biosolids
- ❖ The development of a mixing facility to blend biosolids, short paper fiber, and sand
- ❖ The reclamation of gravel pits with biosolids and/or short paper fiber
- ❖ The development of a sludge lagoon or monofill

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If there are questions regarding this page or any other section of the Guidebook, please contact Tim Drew, Administrator, Public Information and Permitting Unit, at [tdrew@des.state.nh.us](mailto:tdrew@des.state.nh.us), or at (603) 271-3306.

## Septage Holding Tank Registration

**Introduction:** The term “septage” is generally used to describe the liquids, semi-solids, and solids that are pumped from septic tanks, cesspools, holding tanks, boat toilets, and other portable toilets. DES regulates the removal, transportation, and disposal of septage pursuant to RSA 485-A:4, XVI-a (“Water Pollution and Waste Disposal/Duties of Department”, <http://gencourt.state.nh.us/rsa/html/L/485-A/485-A-4.htm>) and NH CODE ADMIN. RULES Env-Ws 1600 (“Septage Management”, <http://www.des.state.nh.us/rules/envws1600.pdf>) to ensure that it is used or disposed in an environmentally compatible manner. Septage holding tanks are used by permitted septage haulers for the temporary storage of septage for seven consecutive days or less. Septage holding tanks allow haulers to respond to emergency situations, such as septic system failure outside normal business hours when a treatment facility or land application site is not open to receive the wastes; to accumulate septage to be land-applied later; or to facilitate pH adjustment prior to the initiation of land application activity. Septage holding tanks must be registered with DES. The tank and all of its appurtenances must be watertight, accessible, and capable of being cleaned on a regular basis; the inlet and outlet connections must be designed and constructed to prevent leaks, spills, or other releases from the tank; the tank installation must comply with required setbacks from abutters, water bodies, wells, and other sensitive receptors; and the aggregate volume of the septage holding tank(s) at any one facility, land application site, or permitted hauler’s property must not exceed 10,000 gallons. The successful applicant will receive a confirmation letter from DES upon approval.

**Average number of registrations issued annually:** 6

**Fee:** None

**Estimated processing time after application is deemed “complete”:** 1-2 weeks

**Registration duration:** Indefinite

**Registration transferability:** Not transferable unless approved by DES

**Registration modification:** Registration-holders must notify DES if septage holding tanks are to be replaced or upgraded. An inspection will be scheduled to verify setback distances and tank integrity.

**Registration renewal:** Not applicable, since duration is “indefinite” (see above)

**State statute:** RSA 485-A:4, XVI-a (“Water Pollution and Waste Disposal Act/Duties of Department”, <http://gencourt.state.nh.us/rsa/html/L/485-A/485-A-4.htm>)

**Federal law:** 33 U. S. C. §1251 *et seq.* (1977) (“Clean Water Act”, <http://www4.law.cornell.edu/uscode/33/ch26.html>)

**N. H. Code of Administrative Rules:** Env-Ws 1600 (“Septage Management Rules”, <http://www.des.state.nh.us/rules/envws1600.pdf>)

**U. S. Code of Federal Regulations:** (Not applicable)

**Appeals body:** Water Council at RSA 21-O:7 (“Department of Environmental Services/Water Council”, <http://gencourt.state.nh.us/rsa/html/I/21-O/21-O-7.htm>; see also <http://www.des.state.nh.us/rules/env-wc200.pdf> and <http://www.des.state.nh.us/councils/#1>)

**Additional information:** N. H. DES, Wastewater Engineering Bureau, (603) 271-7888  
N. H. DES, Public Information Center, (603) 271-2975 or (603) 271-8876



## Septage Holding Tank Registration – Work Sheet

**Key Qualifier Question:** *As a permitted septage hauler or septage site permit holder, will you have the need to store septage in on-site tanks, vessels, or any other container (other than the permitted hauling vehicle) for a period of seven days or less?*

### What must you do to apply?

- Obtain a copy of the *Septage Holding Tank Registration* application from the DES Water Division, Septage and Sludge Section, DES Public Information Center, or access it online at [http://www.des.state.nh.us/www/septslud/holdingtank\\_registration.pdf](http://www.des.state.nh.us/www/septslud/holdingtank_registration.pdf)
- Any permitted hauler who wishes to install or use a septage holding tank must provide the following:
  - Name, address, and home telephone of the applicant
  - Name, address, and telephone number of applicant's business
  - The septage hauler permit number
  - Location of the proposed septage holding tank, including street address, tax map and lot number, and current deed reference
  - The landowner's name, address, and telephone number
  - The capacity and age of the holding tank
- Prepare plans for the holding tank, including the following:
  - A locus map which identifies the proposed holding tank location
  - The identification of all access roads and access control measures to be employed
  - The identification of all roads, property boundary lines, structures within 200 feet of the holding tank location, structures on the property, any easements or rights-of-way which exist on the property, and the buffer zones specified in Table 1608-II, "Buffer Distances for Storage" (NH CODE ADMIN. RULE ENV-Ws 1608.08(h), <http://www.des.state.nh.us/rules/envws1600.pdf>)
  - The identification of surrounding land use within 200 feet of the property on which the holding tank is proposed to be located
  - Septage holding tank specifications, including details of tank and piping design
- Prepare the specifications for tank design including:
  - Tank must be watertight
  - All piping, valves, and connections must also be watertight, accessible, and capable of being cleaned
  - All inlet and outlet connections must be constructed so that no leaks or spills exit the tank
  - Except for existing registered septage storage tanks, no new tank can be located within the buffer distances identified in Table 1608-II (see above)
  - The aggregate volume of the septage holding tank(s) located at a site, facility, or on a permitted hauler's property cannot exceed 10,000 gallons.
- Submit the application for registration, including all supporting materials, to: Sludge and Septage Management Section, Wastewater Engineering Bureau, New Hampshire Department of Environmental Services, 6 Hazen Drive, P. O. Box 95, Concord, NH 03302-0095. Telephone: (603) 271-7888; fax: (603) 271-4128; or online: <http://www.des.state.nh.us/www/septslud.htm>

### What types of projects require this registration?

- ❖ The planned installation of a septage holding tank on the property of a permitted septage hauler
- ❖ The addition of a new holding tank at a permitted septage land application site
- ❖ The installation of a septage holding tank at a permitted facility to facilitate pH adjustment

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If there are questions regarding this page or any other section of the Guidebook, please contact Tim Drew, Administrator, Public Information and Permitting Unit, at [tdrew@des.state.nh.us](mailto:tdrew@des.state.nh.us) or at (603) 271-3306.





## Septage Hauler Permit

**Introduction:** A septage hauler in New Hampshire is defined in NH CODE ADMIN. RULES Env-Ws 1600 as *any person or entity engaged in the removal or transportation of septage*, where “person” includes political subdivisions, business entities, and individuals (see <http://www.des.state.nh.us/factsheets/wwt/web-11.htm>). The term “septage” is generally used to describe the liquids, semi-solids, and solids that are pumped from septic tanks, cesspools, holding tanks, boat toilets, and other portable toilets, but excludes sewage sludge from public treatment works, industrial wastes, or other similar sludges. Septage includes material from septage lagoons. DES regulates the removal, transportation, and disposal of septage pursuant to RSA 485-A:4, XVI-a (“Water Pollution and Waste Disposal/Duties of Department”, <http://gencourt.state.nh.us/rsa/html/L/485-A/485-A-4.htm>) and Env-Ws 1600 (“Septage Management”, <http://www.des.state.nh.us/rules/envws1600.pdf>) to ensure that it is used or disposed in an environmentally compatible manner. A septic tank is a key component of a properly-operating, residential subsurface waste disposal system, and proper maintenance of the tank involves the removal of accumulated materials at a frequency of every two to three years. The septage removed is then transported to either a disposal facility, lagoon, or permitted land application site for beneficial use as a fertilizer or soil conditioner. All septage haulers must receive and maintain a valid permit from DES to remove (by pumping) and transport septage. This provides a system for “cradle-to-grave” tracking of the septage from the time of removal to final disposal. This oversight is needed to protect the public health and environment, due to this waste’s typically low dissolved oxygen concentration and potentially high levels of pathogens, nutrients, and suspended solids, and the putrescible nature of its organic matter. Permit applications require the signature of a responsible official to authorize the hauler to dispose of the septage at a permitted septage treatment, storage, transfer, or disposal facility or approved land application site. Haulers are required to record the origin of every load and the permitted facility or site at which it is finally disposed. Approximately 30 percent of the septage collected is land-applied, stored in lagoons, or sent to alternate treatment facilities, 45 percent goes to publicly-owned treatment facilities in New Hampshire, and the remaining 25 percent is disposed at publicly-owned treatment facilities in other states.

**Average number of permits issued biennially:** 300

**Fees:** \$100 for each vehicle tank, plus \$5 for each new permit plate (All municipalities are exempt from these fees.)

**Estimated processing time after application is deemed “complete”:** 1 week

**Permit duration:** 2 years. Permits expire on January 31 of the odd-numbered year following the date of issuance

**Permit transferability:** Permits are not transferable unless approved by DES

**Permit modification:** Not applicable

**Permit renewal:** A new application must be filed with DES, including an update on all original information submitted, not less than 15 days prior to the expiration date of the existing permit.

**State statute:** RSA 485-A:4, XVI-a (“Water Pollution and Waste Disposal/Duties of Department”, <http://gencourt.state.nh.us/rsa/html/L/485-A/485-A-4.htm>)

**Federal law:** 33 U. S. C. §1251 et seq. (1977) (“Clean Water Act”, <http://www4.law.cornell.edu/uscode/33/ch26.html>)

**N. H. Code of Administrative Rules:** Env-Ws 1600 (“Septage Management”, <http://www.des.state.nh.us/rules/envws1600.pdf>)

**U. S. Code of Federal Regulations:** (Not applicable)

**Appeals body:** Water Council at RSA 21-0:7 (“Department of Environmental Services/Water Council”, <http://gencourt.state.nh.us/rsa/html/l/21-O/21-O-7.htm>; see also <http://www.des.state.nh.us/rules/env-wc200.pdf> and <http://www.des.state.nh.us/councils/#1>)

**Additional information:** N. H. DES, Wastewater Engineering Bureau, (603) 271-3908  
N. H. DES, Public Information Center, (603) 271-2975 or (603) 271-8876

## Septage Hauler Permit – Work Sheet

**Key Qualifier Question:** *Do you plan to engage in the removal and/or transportation of septage (including portable toilet waste) within the state of New Hampshire?*

**What must you do to apply?** (See <http://www.des.state.nh.us/factsheets/wwt/web-11.htm>)

- Obtain a copy of the *2001-2003 Septage Hauler Application* from the DES Water Division, Sludge and Septage Section, DES Public Information Center, or access it online at [http://www.des.state.nh.us/www/septslud/septagehauler\\_app.pdf](http://www.des.state.nh.us/www/septslud/septagehauler_app.pdf).
- Provide the name, address, and home telephone number of the applicant and owner, if an individual.
- Provide the name, address, and telephone number of the applicant's business and contact person.
- Provide any telephone numbers to be used in case of an emergency.
- Provide the vehicle identification number and license plate number for the vehicle(s) that will be used to transport the tanks.
- Provide the tank identification number(s), if applicable.
- Provide the name, principal place of business, and telephone number of the septage hauler or septage transporting company that will appear on both sides of the vehicle or tank that will be used to transport the septage.
- Describe the anticipated service area(s).
- Identify the location of each land application site, septage facility, or wastewater treatment plant to which septage is proposed to be taken.
- Provide evidence as to whether the applicant or owner has been convicted of a misdemeanor under any statute administered by DES with the five years prior to the date of application, or a felony in any state or federal court during the ten years prior to the date of application.
- Prepare a written statement signed by the owner or authorized agent of each land application site, septage facility, or wastewater treatment plant to which the applicant proposes to transport septage, which acknowledges the applicant's intent to beneficially use or dispose of septage there and authorizes that activity to proceed.
- Provide written certification that upon issuance of the permit, the applicant will assume complete responsibility for ensuring that all persons who will be transporting septage with the applicant's vehicle(s) are familiar with the requirements of NH CODE ADMIN. RULES Env-Ws 1600 ("Septage Management", <http://www.des.state.nh.us/rules/envws1600.pdf>).
- Include a written statement signed by the applicant stating that all vehicles and tanks to be used for transporting septage have met all applicable federal and state motor vehicle requirements for septage transportation.
- Submit a check or money order in the amount of \$100 (plus \$5 for each tank needing a new or replacement plate) made payable to "Treasurer, State of New Hampshire" along with the application and all supporting materials to: Sludge and Septage Section, Wastewater Engineering Bureau, Water Division, New Hampshire Department of Environmental Services, 6 Hazen Drive, P. O. Box 95, Concord, NH 03302-0095. Telephone: (603) 271-3908; fax: (603) 271-4128; or online: <http://www.des.state.nh.us/www/septslud.htm> **Note:** Municipalities are exempt from paying the fees but must still apply for the permit.

### What types of projects require this permit?

- ❖ A contractor who plans to offer septic tank pump-out services to area homeowners
- ❖ A company offering septage transport services to a commercial septage facility or land disposal site
- ❖ A town that removes and transports residents' septage to municipal lagoons for temporary storage

If there are questions regarding this page or any other section of the Guidebook, please contact Tim Drew, Administrator, Public Information and Permitting Unit, at [tdrew@des.state.nh.us](mailto:tdrew@des.state.nh.us) or at (603) 271-3306.

## Septage Site Permit

**Introduction:** The term “septage” is used to describe the liquids, semi-solids, and solids that are pumped from a septic tank, cesspool, holding tanks, boat toilets, and other portable toilets. DES regulates the removal, transportation, and disposal of septage pursuant to RSA 485-A:4, XVI-a (“Water Pollution and Waste Disposal/Duties of Department”, <http://gencourt.state.nh.us/rsa/html/L/485-A/485-A-4.htm>) and NH CODE ADMIN. RULES Env-Ws 1600 (“Septage Management”, <http://www.des.state.nh.us/rules/envws1600.pdf>) to ensure that it is used or disposed in an environmentally compatible manner. DES also promotes the recycling of septage through its incorporation into soils at permitted land application sites, where soil microorganisms break down its components. Disposal of septage at a wastewater treatment facility can significantly increase the volume of sludge produced by the facility, which itself must be finally disposed at a landfill or incinerator, or beneficially used by land application. Septage lagoons are a temporary measure only, as they eventually reach capacity and the accumulated solids must then be removed and disposed. The land application of septage is an acceptable practice if all environmental and public health issues are addressed. Land application recycles beneficial constituents (nutrients and organic matter) into the soil and provides water needed for plant growth (septage is normally composed of at least 95 percent water). A Septage Site Permit must be obtained prior to using any site for land application. The application for a Septage Site Permit must include detailed site and management plans, soil testing results, and minimum design and operating standards (e.g., setbacks from houses, wells, slopes, soil types) (see <http://www.des.state.nh.us/factsheets/wwt/web-14.htm>). An applicant must notify all abutters, the appropriate host community officials, and DES regarding plans to prepare a site for land application of septage. If the permit is issued, the permit holder is required to notify the public each year before septage is applied to the site. An annual report must be prepared which documents quantities applied and certifies the site’s compliance with DES administrative rules and permit conditions.

**Average number of permits issued annually:** 5

**Fees:** \$100 for sites with less than 5 acres, \$150 for those with 5-10 acres, and \$300 for sites greater than 10 acres in size. (All municipalities are exempt from these fees.)

**Estimated processing time after application is deemed “complete”:** 3-4 months

**Permit duration:** 5 years, subject to renewal

**Permit transferability:** A Septage Site Permit can be transferred to another person with prior DES approval.

**Permit modification:** Permit holders must notify DES in writing describing the proposed changes to a permit to obtain review and approval prior to implementing any changes. A revised site plan and facility management plan, highlighting the proposed changes, are required along with an explanation of need and a list of abutters originally notified (see [http://www.des.state.nh.us/ww/septslud/septagemod\\_app.pdf](http://www.des.state.nh.us/ww/septslud/septagemod_app.pdf))

**Permit renewal:** An application for renewal must be submitted to DES no later than 120 days prior to the expiration date of the existing permit, including an update of information contained in the original application.

**State statute:** RSA 485-A:4, XVI-a (“Water Pollution and Waste Disposal/Duties of Department”, <http://gencourt.state.nh.us/rsa/html/L/485-A/485-A-4.htm>)

**Federal law:** 33 U. S. C. §1251 et seq. (1977) (“Clean Water Act”, <http://www4.law.cornell.edu/uscode/33/ch26.html>)

**N. H. Code of Administrative Rules:** Env-Ws 1600 (“Septage Management”, <http://www.des.state.nh.us/rules/envws1600.pdf>)

**U. S. Code of Federal Regulations:** 40 CFR Part 122; 40 CFR Part 257; 40 CFR Part 503 (“Environmental Protection Agency”, <http://www.epa.gov/epacfr40/chapt-I.info/chi-toc.htm>)

**Appeals body:** Water Council at RSA 21-0:7 (“Department of Environmental Services/Water Council”, <http://gencourt.state.nh.us/rsa/html/l/21-O/21-O-7.htm>; see also <http://www.des.state.nh.us/rules/env-wc200.pdf> and <http://www.des.state.nh.us/councils/#1>)

**Additional information:** N. H. DES, Wastewater Engineering Bureau, (603) 271-3908  
N. H. DES, Public Information Center, (603) 271-2975 or (603) 271-8876

## Septage Site Permit – Work Sheet

**Key Qualifier Question:** *Do you wish to apply septage to land for the purpose of providing nutrients, organic matter, and water?*

**What must you do to apply?** (See <http://www.des.state.nh.us/factsheets/wwt/web-14.htm>)

- Obtain a copy of the *Septage Site Permit Application* from the DES Wastewater Engineering Bureau, DES Public Information Center, or access it online at [http://www.des.state.nh.us/ww/septslud/septagesite\\_app.pdf](http://www.des.state.nh.us/ww/septslud/septagesite_app.pdf).
- Provide the name, place of business, and telephone number of the applicant's business, or home telephone number (if an individual applicant), including a 24-hour emergency contact.
- Provide the location of the proposed facility, including street address, tax map and lot number, current deed reference, as well as the facility owner's name and the current (or proposed) operator.
- Describe the types of activities proposed for the site (e.g., agricultural, forest, land reclamation, stockpiling, etc.).
- Provide a description of how the site has been used, including agricultural operations and crops grown on each field (if applicable), for the five years prior to submission of the application.
- Provide a written statement that indicates whether the applicant has been convicted of a misdemeanor under any statute administered by DES within five years prior to the date of application, or of a felony in any state or federal court during the ten years prior to the date of application.
- Prepare a site plan in accordance with NH CODE ADMIN. RULES Env-Ws 1607.06 (see <http://www.des.state.nh.us/rules/envws1600.pdf>)
- Prepare a management plan in accordance with Env-Ws 1607.07
- If land reclamation is proposed, prepare a groundwater monitoring plan as required by Env-Ws 1609.
- Prepare a signed statement certifying that:
  - Notice has been provided to DES, all abutters, the host community, and all landowners within 500 feet of the site where land application will occur
  - The site operator has been (or will be) instructed on the requirements of Env-Ws 1600 prior to working there
  - A copy of the application has been provided to the host community and it is accurate
- Include a copy of the U. S. Department of Agriculture's Natural Resource Conservation Service ("NRCS") county soils map, or portion thereof, that clearly delineates the areas of proposed activity and includes a description of each type of soil found at the site (see [http://www.nh.nrcs.usda.gov/Soil\\_Data/](http://www.nh.nrcs.usda.gov/Soil_Data/)).
- Submit a description of soil profile characteristics for each soil test pit or auger boring, including a description of the soil profile characteristics, depth to seasonal high water table, and depth to bedrock/other restrictive layer.
- Provide a U. S. Geological Survey map (largest scale available) depicting site boundaries with its latitude/longitude specified (see <http://www.topozone.com>).
- Submit the results of "background" soil analyses conducted in accordance with Env-Ws 1607.11(e) and (f) including such parameters as heavy metals, soil acidity pH, buffer pH, texture, phosphorus, and organic matter.
- Provide written verification from the New Hampshire Department of Resources and Economic Development's Natural Heritage Inventory Section that indicates whether any threatened or endangered species exist on the site (see [http://www.nhdf.org/organization/div\\_nhnhi.htm](http://www.nhdf.org/organization/div_nhnhi.htm)).
- For land reclamation and forest application sites, submit a site-specific map or survey according to the Society of Soil Scientists of Northern New England's ***Site-Specific Soil Mapping Standards for New Hampshire and Vermont*** (see next "bullet")
- See [http://www.nh.nrcs.usda.gov/Soil\\_Data/Publications/NH%20VT%20Soil%20Mapping%20Standards.pdf](http://www.nh.nrcs.usda.gov/Soil_Data/Publications/NH%20VT%20Soil%20Mapping%20Standards.pdf)
- Prepare a list of all other state permits required for the site, and provide proof of application and status.

- Identify a local public repository where all information concerning the application can be reviewed.
- If the applicant is not the owner, submit a written statement that authorizes the applicant to land-apply septage on the specified site and further authorizes DES to enter for purposes of site inspection and investigation.
- Submit a check or money order for \$300 (if site exceeds 10 acres), \$150 (if site is 5-10 acres) or \$100 (if site is 5 acres or less) (municipal and currently permitted septage facilities are exempt from these fees), made payable to "Treasurer, State of New Hampshire", along with two copies of all information to: Sludge and Septage Management Section, Wastewater Engineering Bureau, New Hampshire Department of Environmental Services, 6 Hazen Drive, P. O. Box 95, Concord, NH 03302-0095. Telephone: (603) 271-3908; fax: (603) 271-4128; or online: <http://www.des.state.nh.us/www/septslud.htm>

### **What types of projects require this permit?**

- ❖ A municipal site that will be used to land-apply the septage removed from residential septic tanks in the community
- ❖ A private forested parcel that will incorporate septage on a commercial basis for timber management activities

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If there are questions regarding this page or any other section of the Guidebook, please contact Tim Drew, Administrator, Public Information and Permitting Unit, at [tdrew@des.state.nh.us](mailto:tdrew@des.state.nh.us) or at (603) 271-3306.



## Septage Facility Permit

**Introduction:** The term “septage” is used to describe the liquids, semi-solids, and solids that are pumped from septic tanks, cesspools, holding tanks, boat toilets, and other portable toilets. Pursuant to RSA 485-A:4, XVI-a (“Water Pollution and Waste Disposal/Duties of Department”, <http://gencourt.state.nh.us/rsa/html/L/485-A/485-A-4.htm>) and NH CODE ADMIN. RULES Env-Ws 1600 (“Septage Management”, <http://www.des.state.nh.us/rules/envws1600.pdf>), DES regulates the removal, transportation, and disposal (including beneficial use) of septage to ensure that it is used or disposed in an environmentally compatible manner. DES also promotes the recycling of septage through incorporation into soils at permitted land application sites, where soil microorganisms break down its components. Disposal of septage at a wastewater treatment facility can significantly increase the volume of sludge produced by the facility, which itself must be finally disposed at a landfill or incinerator, or beneficially used by land application. Septage lagoons are a temporary measure only, as they eventually reach capacity and the accumulated solids must then be removed and disposed. To address the need for cost-effective septage management options, DES has created the Septage Facility Permit to regulate any facility that is created to manage, process, store, treat, or dispose of septage, including facilities where septage is collected and/or stored before being transported to another site or facility (see <http://www.des.state.nh.us/factsheets/www/web-13.htm>). This permit does not apply to land application sites or facilities regulated by RSA 149-M (“Solid Waste Management”, <http://gencourt.state.nh.us/rsa/html/indexes/149-M.html>). An applicant must notify abutters, host community officials, and DES concerning the plans for such a facility and must provide a facility plan, management plan, closure plan, odor control plan, and groundwater monitoring plan (where appropriate). If strict adherence to the standards cannot be achieved, the applicant may apply for a waiver (see [http://www.des.state.nh.us/www/septslud/septage\\_waiver.pdf](http://www.des.state.nh.us/www/septslud/septage_waiver.pdf)). A waiver will be granted if the proposed alternative is at least equivalent to the requirements contained in the rules, is sufficient to ensure compliance with RSA 485-A and RSA 485-C (“Groundwater Protection Act”, <http://gencourt.state.nh.us/rsa/html/indexes/485-C.html>), and will be protective of human health and safety, and the environment. Permit conditions are included to minimize the impact of the facility on the abutters, the host community, and the surrounding environment. These requirements also apply to septage storage facilities and transfer stations where it is collected before being transported to another site or facility.

**Average number of permits issued annually:** 5

**Fee:** \$1,000, unless applicant is exempt (All municipalities are exempt from these fees.)

**Estimated processing time after application is deemed “complete”:** 3-4 months

**Permit duration:** 5 years, subject to renewal

**Permit transferability:** A permit can be transferred to another person with prior approval from DES.

**Permit modification:** Permit holders must notify DES in writing describing the proposed changes to a permit to obtain review and approval prior to implementing any changes. A revised site plan and facility management plan, highlighting the proposed changes, are required along with an explanation of need and a list of current abutters to whom the notice was not provided at the time of the original application (see [http://www.des.state.nh.us/www/septslud/septagemod\\_app.pdf](http://www.des.state.nh.us/www/septslud/septagemod_app.pdf)).

**Permit renewal:** An application for renewal (including an update of information contained in the original application) must be submitted to DES no later than 120 days prior to the expiration date of the existing permit.

**State statute:** RSA 485-A:4, XVI-a (“Water Pollution and Waste Disposal/Duties of Department”, <http://gencourt.state.nh.us/rsa/html/L/485-A/485-A-4.htm>)

**Federal law:** 33 U. S. C. §1251 *et seq.* (1977) (“Clean Water Act”, <http://www4.law.cornell.edu/uscode/33/ch26.html>)

**N. H. Code of Administrative Rules:** Env-Ws 1600 (“Septage Management”, <http://www.des.state.nh.us/rules/envws1600.pdf>)

**U. S. Code of Federal Regulations:** 40 CFR Part 122; 40 CFR Part 257; 40 CFR Part 503 (“Environmental Protection Agency”, <http://www.epa.gov/epacfr40/chapt-I.info/chi-toc.htm>)

**Appeals body:** Water Council at RSA 21-0:7 (“Department of Environmental Services/Water Council”, <http://gencourt.state.nh.us/rsa/html/l/21-O/21-O-7.htm>; see also <http://www.des.state.nh.us/rules/env-wc200.pdf> and <http://www.des.state.nh.us/councils/#1>)

**Additional information:** N. H. DES, Wastewater Engineering Bureau, (603) 271-3908  
N. H. DES, Public Information Center, (603) 271-2975 or (603) 271-8876

## Septage Facility Permit – Work Sheet

**Key Qualifier Question:** *Will your project include the development of a site to host a septage facility that may include storage lagoons, treatment facilities, transfer stations, a site where septage is to be mixed prior to offsite shipment, and/or a location where a septage storage tank will be placed?*

**What must you do to apply?** (See <http://www.des.state.nh.us/factsheets/wwt/web-13.htm>)

- Obtain a copy of the *Septage Facility Permit Application* from the DES Wastewater Engineering Bureau, DES Public Information Center, or access it online at [http://www.des.state.nh.us/ww/septslud/septagefacility\\_app.pdf](http://www.des.state.nh.us/ww/septslud/septagefacility_app.pdf).
- Provide the name, place of business, and telephone number of the applicant's business, or home telephone number (if an individual applicant), including a 24-hour emergency contact.
- Provide the location of the proposed facility, including street address, tax map and lot number, current deed reference, the name(s) of the facility owner, and the current (or proposed) operator.
- Describe the type of septage management activities proposed for the site (e.g., processing, storing, or treatment).
- Provide an estimate of the facility's intended capacity and its projected design life.
- Describe the land use where the facility is proposed for the five years prior to the application.
- Submit the following documents, prepared and stamped by a registered professional engineer licensed to practice in the state of New Hampshire (see <http://www.state.nh.us/itboard/pe.htm>), pursuant to NH CODE ADMIN. RULES Env-Ws 1600 ("Septage Management", <http://www.des.state.nh.us/rules/envws1600.pdf>):
  - Facility plan and construction specifications in accordance with Env-Ws 1608.06.
  - Management plan in accordance with Env-Ws 1608.07.
  - Closure plan in accordance with Env-Ws 1608.09.
  - Groundwater monitoring plan (if required) in accordance with 1609.
- Provide a signed statement certifying that:
  - Notice of the proposal has been given to abutters, the host community, and all landowners located within 500 feet of the facility.
  - The operator of the facility has been (or will be) instructed on the requirements of Env-Ws 1600 before operating the facility.
  - A copy of the facility application has been provided to the host community and the information is accurate.
- Include a copy of the U. S. Department of Agriculture's Natural Resource Conservation Service county soils map, or portion thereof, clearly delineating the areas of proposed activity and including a description of each type of soil found at the site (see [http://www.nh.nrcs.usda.gov/Soil\\_Data/](http://www.nh.nrcs.usda.gov/Soil_Data/)).
- Submit a description of the soil profile characteristics for each soil test pit or auger boring, including a description of the soil profile characteristics, depth to seasonal high water table, and depth to bedrock/other restrictive layer.
- Provide a U. S. Geological Survey map (largest scale available) depicting the facility's boundaries and with its latitude/longitude specified (see <http://www.topozone.com>).
- Provide written verification from the New Hampshire Department of Resources and Economic Development's Natural Heritage Inventory Section that indicates whether any threatened or endangered species exist on the site (see [http://www.nhdf.org/organization/div\\_nhnhi.htm](http://www.nhdf.org/organization/div_nhnhi.htm)).
- Prepare a list of all other state permits required for the site, and provide proof of application and status.
- Identify a local public repository where all information concerning the application can be reviewed.
- Provide a written statement that indicates whether the applicant has been convicted of a misdemeanor under any statute administered by DES within five years prior to the date of application, or of a felony in any state or federal court during the ten years prior to the date of application.

- If the applicant is not the owner, submit a written statement that authorizes the applicant to construct and operate the proposed facility on the specified site and further authorizes DES to enter for site inspections and investigations.
- Submit a check or money order for \$1,000 (Municipal facilities are exempt from this fee.), made payable to “Treasurer, State of New Hampshire”, along with two copies of all information to: Sludge and Septage Management Section, Wastewater Engineering Bureau, New Hampshire Department of Environmental Services, 6 Hazen Drive, P. O. Box 95, Concord, NH 03302-0095. Telephone: (603) 271-3908; fax: (603) 271-4128; or online: <http://www.des.state.nh.us/www/septslud.htm>

#### **What types of projects require this permit?**

- ❖ A municipal site on which storage lagoons for septage are proposed to be constructed
- ❖ Private property on which a processing facility for mixing septage in preparation for offsite disposal is proposed to be constructed
- ❖ A regional transfer station that proposes to facilitate the receipt/consolidation and offsite transport of septage to a final disposal site

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If there are questions regarding this page or any other section of the Guidebook, please contact Tim Drew, Administrator, Public Information and Permitting Unit, at [tdrew@des.state.nh.us](mailto:tdrew@des.state.nh.us) or at (603) 271-3306.